ALBUQUERQUE — NEW MEXICO

N. E. HEIGHTS INTERCEPTOR
SANITARY SEWER — SECTION I

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7	PLAN AND PROFILE STA. 58+00 TO 74+00	14	SPECIAL STRUCTURES
			STANDARD CONSTRUCTION SIGNS & BARRICADES

All pipe under 54" prorated @ #3 1167

CITY OF ALBUQUERQUE

APPROVED [illegible] DATE [illegible] 1961

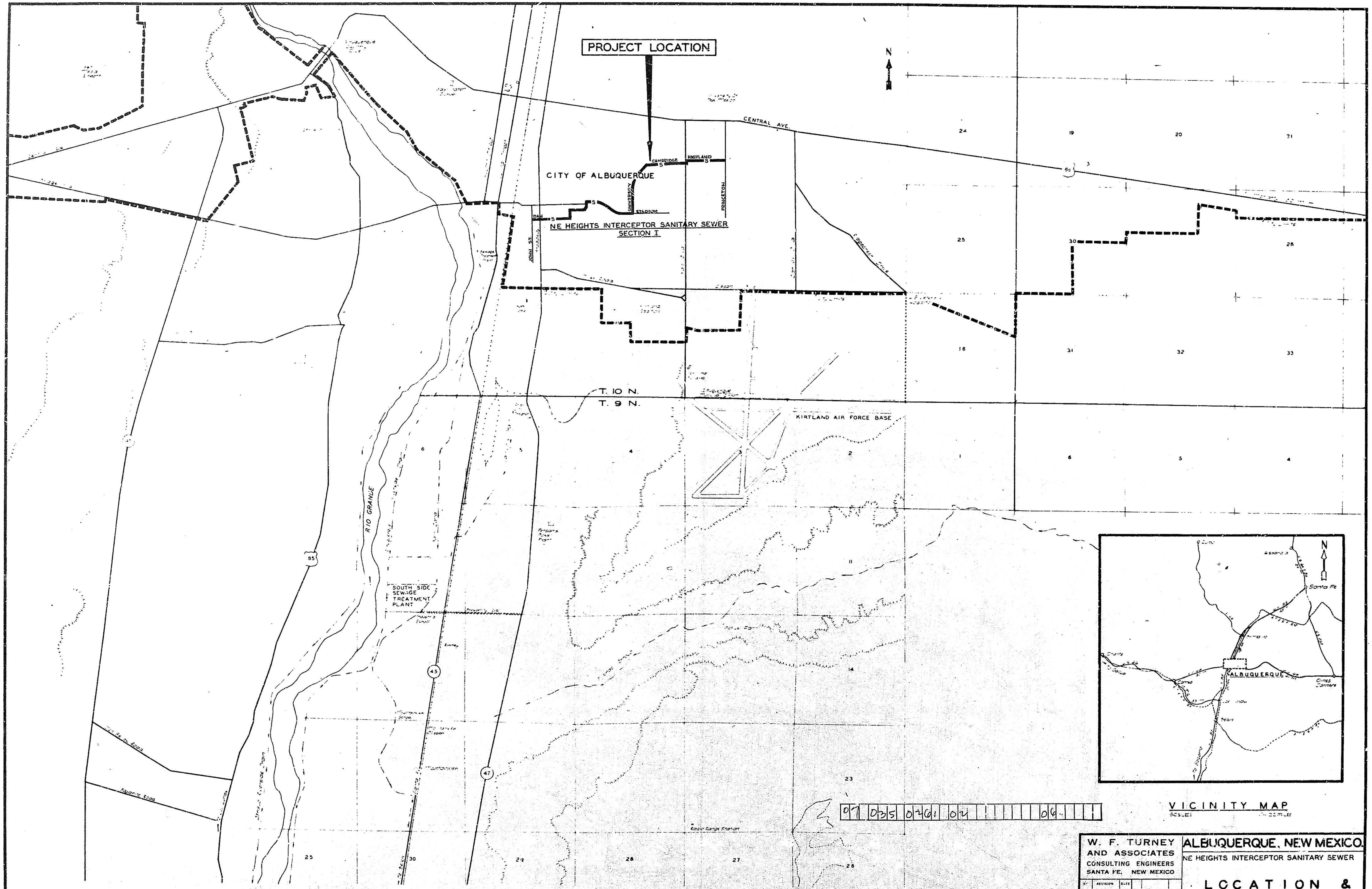
01 035 0161 02 05

W. F. TURNEY
AND ASSOCIATES
CONSULTING ENGINEERS
SANTA FE NEW MEXICO

AS CONSTRUCTED

PROJECT NO. 60-3

SHEET 1
OF 14


PROJECT LOCATION
CITY OF ALBUQUERQUE
CAMBRIDGE
HIGHLAND
STADIUM
DAN
JOHN ST.
NE HEIGHTS INTERCEPTOR SANITARY SEWER
SECTION I
CENTRAL AVE.
T. 10 N.
T. 9 N.
KIRTLAND AIR FORCE BASE
RIO GRANDE
SOUTH SIDE SEWAGE TREATMENT PLANT
N
24
19
20
21
25
30
28
16
31
32
33
6
5
4
2
1
11
14
23
26
27
28
29
30
25
85
45
47
Santa Fe
ALBUQUERQUE

LOCATION MAP

VICINITY MAP

SCALE: 1" = 22 miles

07 035 0261 02 06

AS CONSTRUCTED

W. F. TURNEY AND ASSOCIATES
CONSULTING ENGINEERS
SANTA FE, NEW MEXICO

ALBUQUERQUE, NEW MEXICO.

NE HEIGHTS INTERCEPTOR SANITARY SEWER

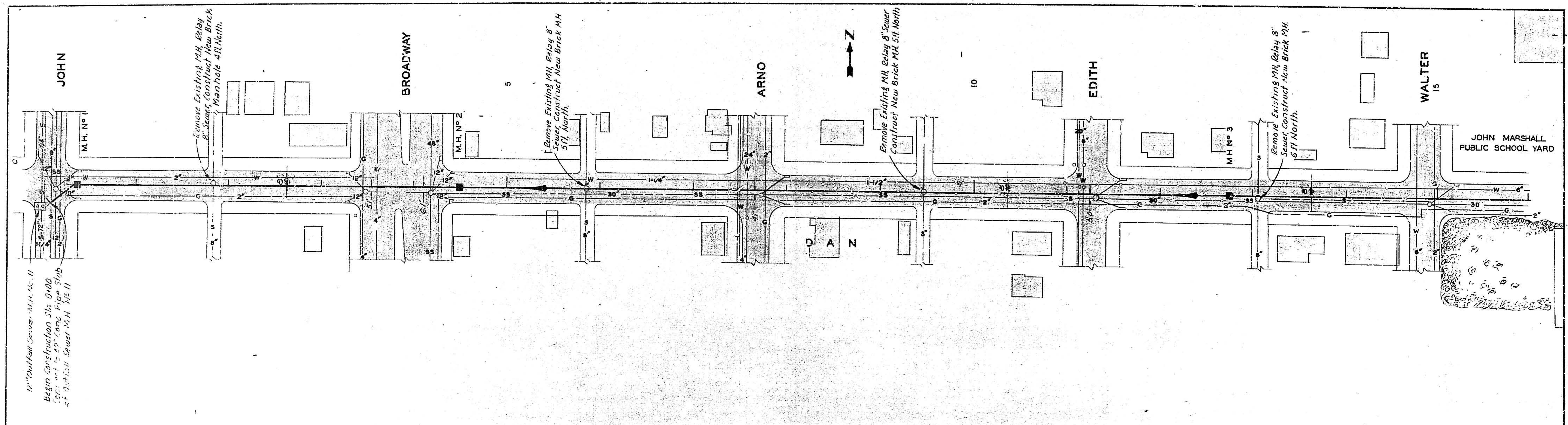
LOCATION & VICINITY MAP

No.	REVISION	DATE

O. A. E. DESIGNATES OR APPROVED EQUAL

DRAWN:
CHECKED:

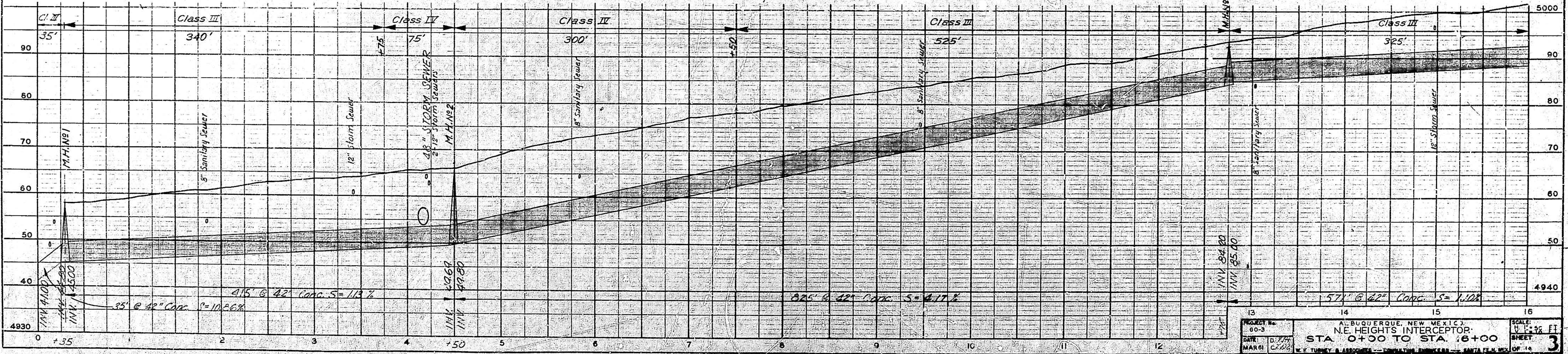
PROJECT No.	SCALE:	DATE:	SHEET
60-3	1" = 1 MILE	MAR 61	2 OF 14


JOHN
BROADWAY
5
ARNO
N
10
EDITH
WALTER
15
M.H. No 1
M.H. No 2
M H No 3
DAN
JOHN MARSHALL PUBLIC SCHOOL YARD
Remove Existing M.H., Relay 8" Sewer, Construct New Brick Manhole 4ft. North.
Remove Existing MH, Relay 8" Sewer, Construct New Brick MH 5ft. North.
Remove Existing MH, Relay 8" Sewer Construct New Brick M.H. 5ft. North
Remove Existing MH, Relay 8" Sewer, Construct New Brick M.H. 6 ft North.
18" Outfall Sewer M.H. No. 11
Begin Construction Sta 0+00 Cont. at ± 42" Conc. Pipe Stub at Outfall Sewer M.H. No 11
W
G
S
SS
2"
1-1/4"
1-1/2"
30"
12"
48"
24"
8"
6"
4"
3"

LEGEND

——G——	GAS LINE
——W——	WATER LINE
——S——	SANITARY SEWER LINE
——SS——	STORM SEWER LINE
——○——	EXISTING MANHOLE
——■——	MANHOLE AND SEWER LINE THIS CONTRACT

0	7		0	3	5	0	3	6	1	0	2								5	6	1	4

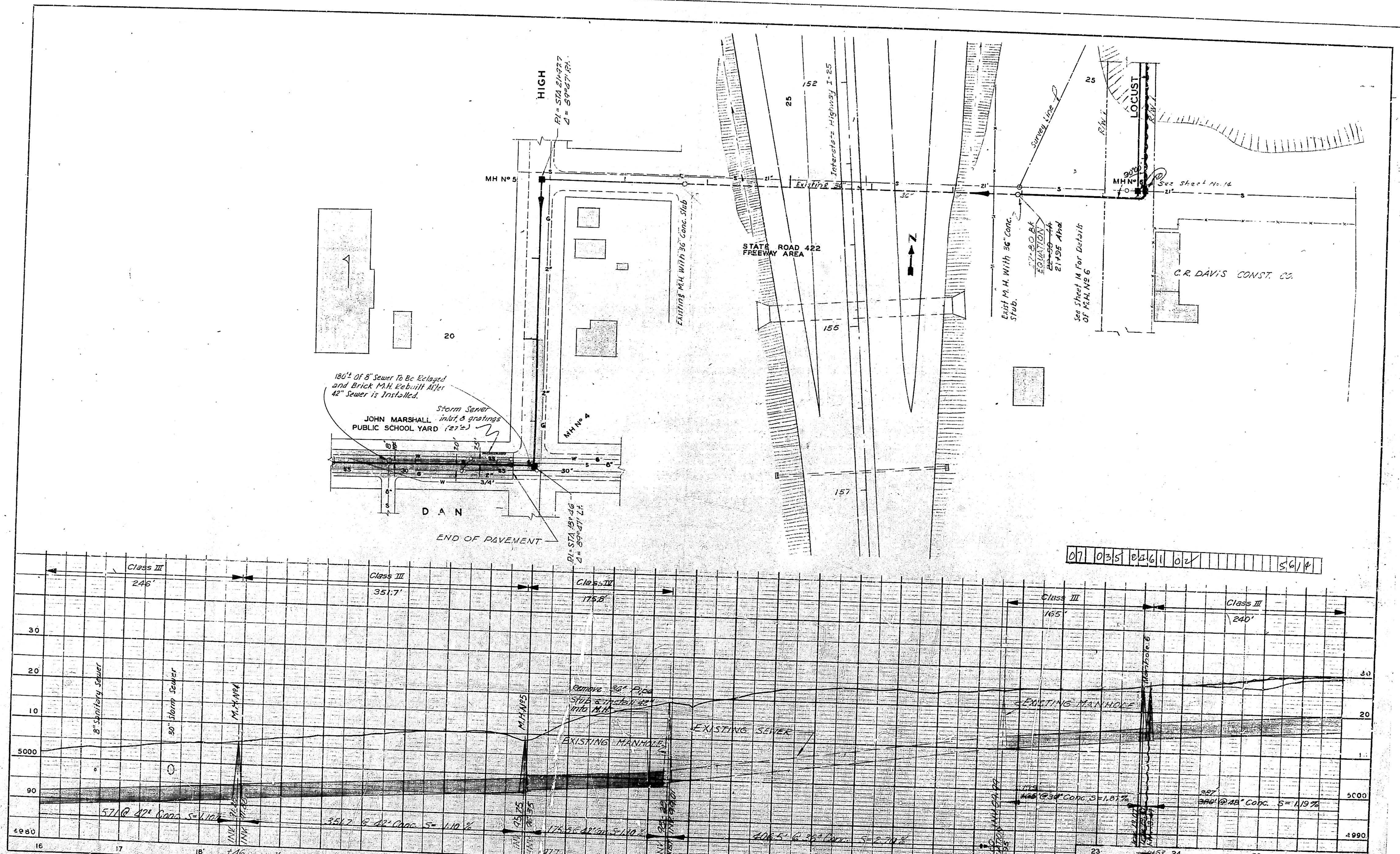

Cl. III
35'
Class III
340'
+75
Class IV
75'
Class IV
300'
+50
Class III
525'
M.H.No3
Class III
325'
M.H.No1
8" Sanitary Sewer
12" Storm Sewer
48" STORM SEWER
2-12" Storm Sewers
M.H.No2
8" Sanitary Sewer
8" Sanitary Sewer
8" Sanitary Sewer
12" Storm Sewer
INV. 41.00
INV. 42.80
INV. 45.00
35' @ 42" Conc. S=10.86%
415' @ 42" Conc. S= 1.13 %
INV. 49.67
INV. 49.80
825' @ 42" Conc. S= 4.17 %
INV. 84.20
INV. 85.00
571' @ 42" Conc. S= 1.10%
+71
5000
90
80
70
60
50
40
4940
4930
0
+35
2
3
4
+50
5
6
7
8
9
10
11
12
13
14
15
16

PROJECT No.
60-3
DATE:
MAR 61
D. T.T.H.
C. T.D.G.

ALBUQUERQUE, NEW MEXICO.
N.E. HEIGHTS INTERCEPTOR
STA. 0+00 TO STA. 16+00
W. K. TURNEY & ASSOCIATES — CONSULTING ENGINEERS — SANTA FE, N. MEX.

SCALE:
H. 1"=50 FT.
V. 1"=10 FT.
SHEET 3
OF 14

AS CONSTRUCTED


HIGH
P.I. = STA 21+97.7
Δ = 89°47' Rt.
MH Nº 5
Existing M.H. With 36" Conc. Stub
20
180'± Of 8" Sewer To Be Relayed and Brick M.H. Rebuilt After 42" Sewer is Installed.
Storm Sewer inlet, 8 gratings (27'±)
JOHN MARSHALL PUBLIC SCHOOL YARD
MH Nº 4
7.0'
7.5'
W
SS
30"
6"
8"
2"
3/4'
G
S
DAN
END OF PAVEMENT
P.I. = STA 18+46
Δ = 89°47' Lt.
25
152
Interstate Highway I-25
Existing 36"
36"
21"
STATE ROAD 422
FREEWAY AREA
N
155
157
Survey Line
Exist M.H. With 36" Conc. Stub.
21+80 Bk
EQUATION
~~22+50~~ Ah
21+95 Ahd
See Sheet 14 For Details Of M.H. Nº 6
R/W
LOCUST
MH Nº 6
90°00'
See Sheet No. 14
C.R. DAVIS CONST. CO.
Class III
246'
Class III
351.7'
Class IV
175.8'
Class III
155'
Class III
240'
30
20
10
5000
90
4980
20
5000
4990
8" Sanitary Sewer
30" Storm Sewer
M.H. Nº 4
M.H. Nº 5
Remove 36" Pipe Stub & install 42" into M.H.
EXISTING MANHOLE
EXISTING SEWER
EXISTING MANHOLE
Manhole 6
571' @ 42" Conc. S=1.10%
INV. 91.48
INV. 91.88
351.7' @ 42" Conc. S= 1.10%
INV. 95.75
INV. 96.35
175.8' @ 42" Conc. S=1.10%
INV. 98.22
EXIST. INV. 99.01
406.5' @ 36" Conc. S= 2.70%
155
~~125~~' @ 30" Conc. S=1.87%
387
~~380~~' @ 48" Conc. S= 1.19%
21+80 EQUATION 21+95
INV. 99.99
16
17
18
+46
19
20
21
22
+77
23
+73.5
24
25
26
27
22
23
~~30+53~~
24
25
26

07 035 0461 02 5614

PROJECT No. 60-3

DATE: D.J.H.

MARG: C.R.L.

ALBUQUERQUE, NEW MEXICO.

N.E. HEIGHTS INTERCEPTOR

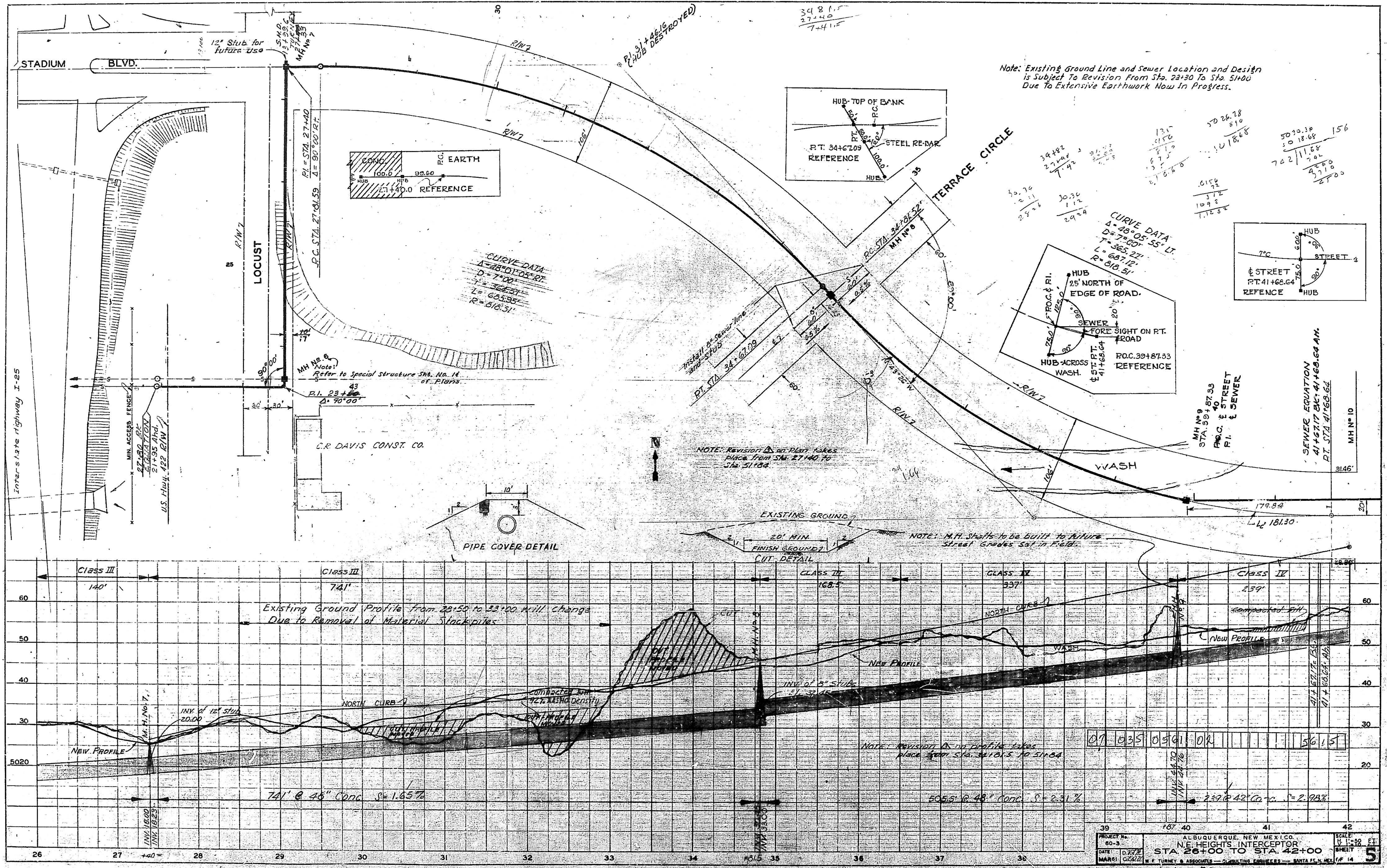
STA 16+00 TO STA 26+00

W. E. TURNEY & ASSOCIATES — CONSULTING ENGINEERS — SANTA FE, N. MEX.

SCALE:
H. 1" = 50 FT.
V. 1" = 10 FT.

SHEET 4 OF 14

AS CONSTRUCTED


STADIUM BLVD.
12" Stub for future use
S.H.P. 6
MH No 7
P.I. 31+46.16 (HUB DESTROYED)
R/W
LOCUST
P.I. = STA. 27+40
Δ = 90°00' RT.
P.C. STA. 27+81.59
CONC.
HUB
100.0
99.60
P.C.
EARTH
27+40.0 REFERENCE
CURVE DATA
Δ = 48°01'05" RT.
D = 7°00'
T = 364.51'
L = 685.95'
R = 818.51'
MH No. 6
Note: Refer to Special Structure Sht. No. 14 of Plans
P.I. 23+43
Δ = 90°00'
C.R. DAVIS CONST. CO.
Interstate Highway I-25
MIN. ACCESS FENCE
27+80 Rt. = STATION 21+95 Ahd. U.S. Hwy. 422 R/W
HUB-TOP OF BANK
P.C.
P.T.
STEEL RE-BAR
P.T. 34+67.09 REFERENCE
HUB
TERRACE CIRCLE
P.C. STA. 34+81.52
MH No 8
Install 8" Sewer line and Stub
P.T. STA. 34+67.09
60'
CURVE DATA
Δ = 48°05'55" LT.
D = 7°00'
T = 365.27'
L = 687.12'
R = 818.51'
HUB
25' NORTH OF EDGE OF ROAD.
P.O.C. & P.I.
SEWER
FORE SIGHT ON P.T. ROAD
HUB ACROSS WASH.
℄ ST. P.T. 41+68.64
P.O.C. 39+87.33 REFERENCE
℄ STREET
P.T. 41+68.64
REFENCE
HUB
STREET
MH No 9
STA. 39+87.33
P.O.C. ℄ STREET
P.I. ℄ SEWER
SEWER EQUATION
41+67.17 Bk. = 41+68.64 Ah.
P.T. STA. 41+68.64
MH No 10
WASH
179.84
181.30
Note: Existing Ground Line and Sewer Location and Design is Subject To Revision From Sta. 23+30 To Sta. 51+00 Due To Extensive Earthwork Now In Progress.
NOTE: Revision ③ on Plan takes place from Sta. 27+40 to Sta. 51+84.
PIPE COVER DETAIL
EXISTING GROUND
20' MIN.
FINISH GROUND
CUT DETAIL
NOTE: M.H. Shafts to be built to future Street Grades Set in Field.
Class III 140'
Class III 741'
CLASS IV 168.5
CLASS IV 337'
Class IV 239'
Existing Ground Profile from 28+50 to 33+00 will Change Due to Removal of Material Stockpiles
CUT
NORTH CURB
New Profile
Compacted Fill 92% AASHO Density
M.H. No. 7
INV. of 12" Stub 20.00
INV. of 8" Stub
WASH
Compacted Fill
Note: Revision ③ on profile takes place from Sta. 34+81.5 to 51+84
INV. 18.00
INV. 18.23
741' @ 46" Conc. S = 1.65%
505.5' @ 48" Conc. S = 2.31%
239' @ 42" Conc. S = 2.98%
INV. 33.00
INV. 44.70
INV. 44.76
07 035 0561 02 561.5
60
50
40
30
5020
20
26
27
+40
28
29
30
31
32
33
34
+81.5
35
36
37
38
39
+87
40
41
42

PROJECT No. 60-3

DATE: MAR61

D. [illegible]
C. [illegible]

ALBUQUERQUE, NEW MEXICO.
N.E. HEIGHTS INTERCEPTOR
STA. 26+00 TO STA. 42+00

W. F. TURNEY & ASSOCIATES — CONSULTING ENGINEERS — SANTA FE, N. MEX.

SCALE: H. 1" = 50 FT. V. 1" = 10 FT.

SHEET 5 OF 14

③ Revised 10/20/61

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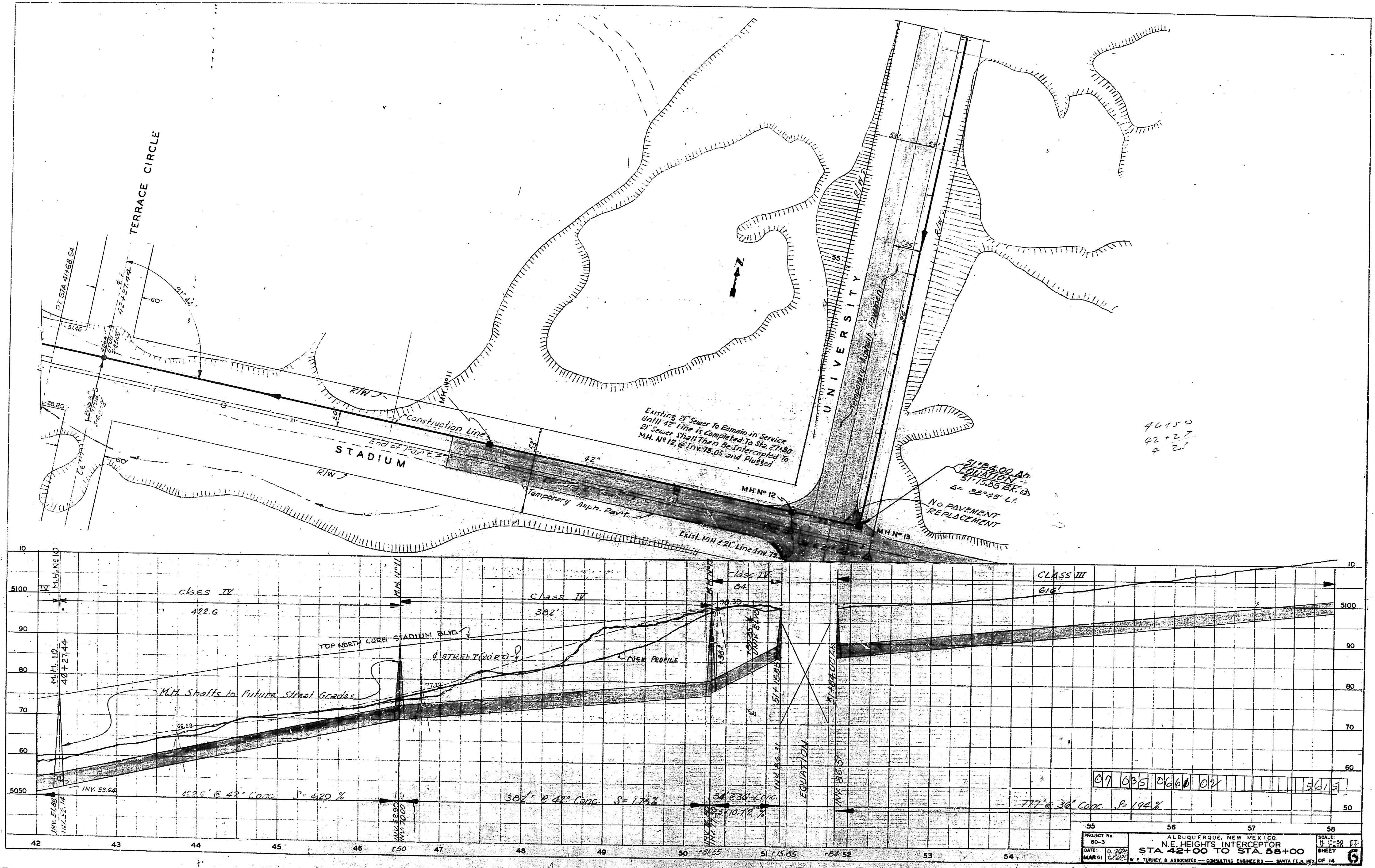
TERRACE CIRCLE
PT. STA 41+68.64
℄ 42+27.44
91°46'
60'
51.46
400 8" STUB S=0.50%
800 8" STUB S=0.50%
28.80
℄
60'
21"
20'
5
R/W
MH No 11
Construction Line
End of Pav't.
STADIUM
R/W
53'
42"
Existing 21" Sewer
Temporary Asph. Pav't.
Existing 21" Sewer To Remain in Service Until 42" Line is Completed To Sta. 27+80 21" Sewer Shall Then Be Intercepted To M.H. No 12, @ Inv. 78.05 and Plugged
MH No 12
Exist. MH & 21" Line Inv. 79.
& 21" Conc.
MH No 13
51+84.00 Ah.
EQUATION
51+15.85 Bk.
Δ= 88°45' Lt.
No PAVEMENT REPLACEMENT
UNIVERSITY
Temporary Asphalt Pavement
R/W
R/W
55
53'
55'
56'
N
10
5100
90
80
70
60
5050
IV
M.H. No 10
M.H. 10
42+27.44
class IV
422.6
M.H. No 11
Class IV
382'
TOP NORTH CURB STADIUM BLVD.
℄ STREET (20' RT.)
M.H. Shafts to Future Street Grades
66.29
77.12
New PROFILE
INV. 53.64
INV. 51.88
INV. 52.14
422.6' @ 42" Conc. S= 4.20 %
INV. 69.90
INV. 70.00
382'± @ 42" Conc. S= 1.78%
M.H. No 12
Class IV
84'
98.39
+38.7
+80.05 ℄ UNIV. BLVD.
℄
INV. 76.80
INV. 77.30
84' @ 36" Conc.
S= 10.72 %
51+15.85
INV. 86.31
EQUATION
51+84.00 Ah.
INV. 86.31
CLASS III
616'
777' @ 36" Conc. S= 1.94 %
42
43
44
45
46
+50
47
48
49
50
+31.85
51 +15.85
+84 52
53
54
55
56
57
58

46+50
42+27
4 23

07 035 0660 02 56 15

111

PROJECT No. 60-3

DATE: MAR 61

D. VJH
C. PDC

ALBUQUERQUE, NEW MEXICO.
N.E. HEIGHTS INTERCEPTOR
STA. 42+00 TO STA. 58+00

W. F. TURNEY & ASSOCIATES — CONSULTING ENGINEERS — SANTA FE, N. MEX.

SCALE: H. 1"=50 FT. V. 1"=10 FT.

SHEET 6 OF 14

3 Revised 10/20/61

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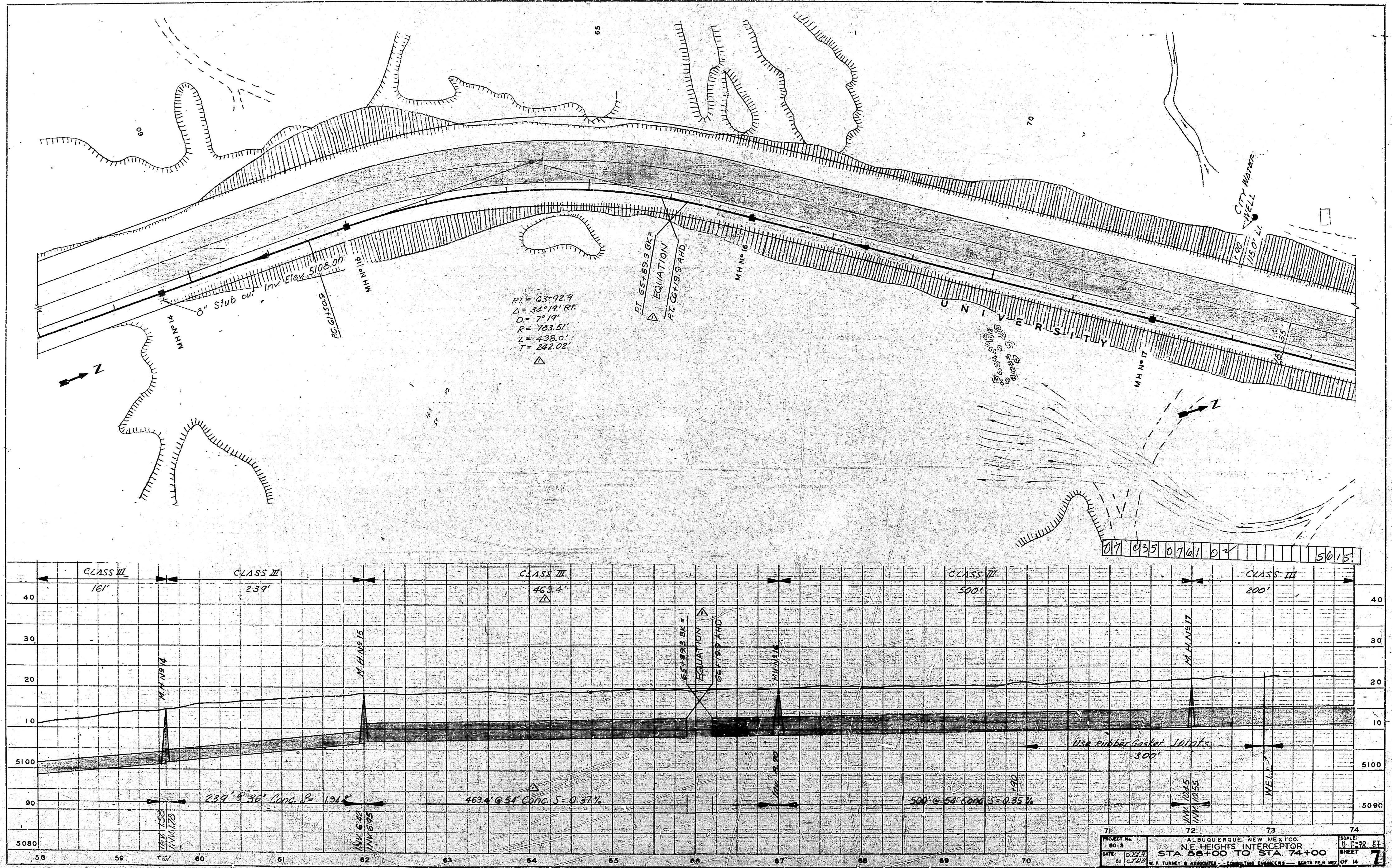

60
65
70
8" Stub out Inv. Elev. 5108.00
MH Nº 14
P.C. 61+50.9
MH Nº 15
P.I. = 63+92.9
Δ = 34°19' Rt.
D = 7°19'
R = 783.51'
L = 438.0'
T = 242.02'
P.T. 65+89.3 BK =
EQUATION
P.T. 66+19.9 AHD.
MH Nº 16
UNIVERSITY
MH Nº 17
CITY WATER WELL
+90
115.0' Lt.
18"
55'
Z
07 035 0761 02 5615
CLASS III
161'
CLASS III
239'
CLASS III
463.4'
CLASS III
500'
CLASS III
200'
40
30
20
10
5100
90
5080
M.H. Nº 14
M.H. Nº 15
65+89.3 BK =
EQUATION
66+19.9 AHD
M.H. Nº 16
M.H. Nº 17
Use Rubber Gasket Joints
300'
WELL
239' @ 36" Conc. S = 1.94%
INV. 7.58
INV. 7.78
INV. 6.42
INV. 6.95
469.4' @ 54" Conc. S = 0.37%
Inv. 8.90
500' @ 54" Conc. S = 0.35%
+90
INV. 10.25
INV. 10.55
58
59
+61
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74

PROJECT No. 60-3

DATE: 61

D. [illegible]
C. [illegible]

ALBUQUERQUE, NEW MEXICO.

N.E. HEIGHTS INTERCEPTOR

STA. 58+00 TO STA. 74+00

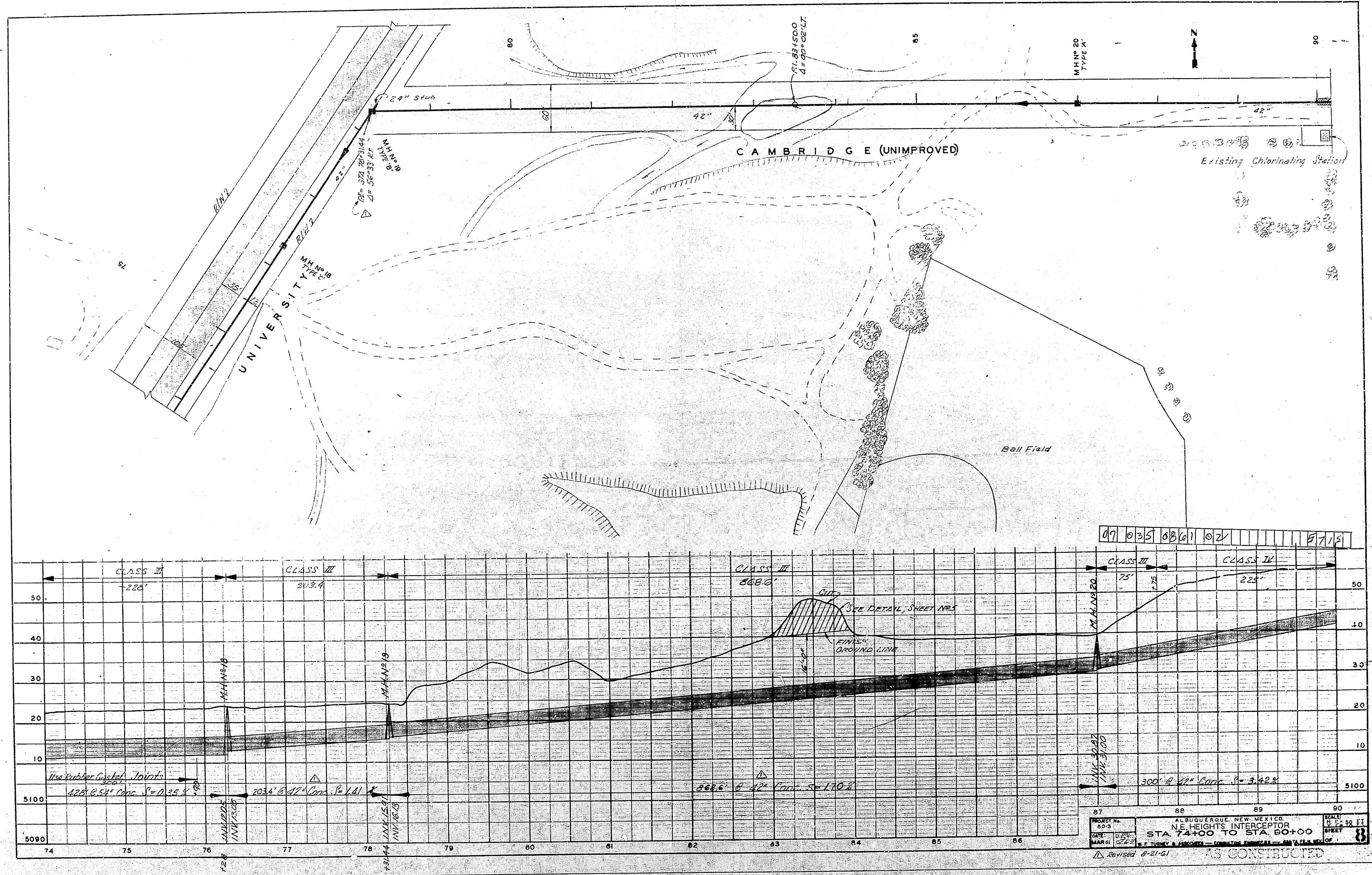
W. F. TURNEY & ASSOCIATES — CONSULTING ENGINEERS — SANTA FE, N. MEX.

SCALE:
H. 1" = 50 FT.
V. 1" = 10 FT.

SHEET 7 OF 14

Δ1 Revised 8-21-61

AS CONSTRUCTED



CAMBRIDGE (UNIMPROVED)
UNIVERSITY
R/W ?
R/W ?
"24" Stub
42"
42"
42"
P.I. 83+50.0
Δ = 90° 02' LT.
P.I. = STA 78+31.44
Δ = 56° 33' RT.
M.H. No 19
B-TYPE
M.H. No 18
TYPE C
M.H. No 20
TYPE 'A'
N
80
85
90
75
60
30
106
Existing Chlorinating Station
Ball Field
CLASS II
228'
CLASS III
203.4
CLASS III
868.6'
CLASS III
75'
CLASS IV
225'
CUT
SEE DETAIL, SHEET No 5
FINISH GROUND LINE
16'-0"
M.H. No 18
M.H. No 19
M.H. No 20
Use Rubber Gasket Joints
300'
428' @ 54" Conc. S = 0.35 %
203.4' @ 42" Conc. S = 1.41 %
868.6' @ 42" Conc. S = 1.70 %
300' @ 42" Conc. S = 3.42 %
INV. 12.05
INV. 13.00
INV. 15.91
INV. 16.13
INV. 30.87
INV. 31.00
+28
+31.44
+75
50
40
30
20
10
5100
5090
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
07 035 0861 02 5715

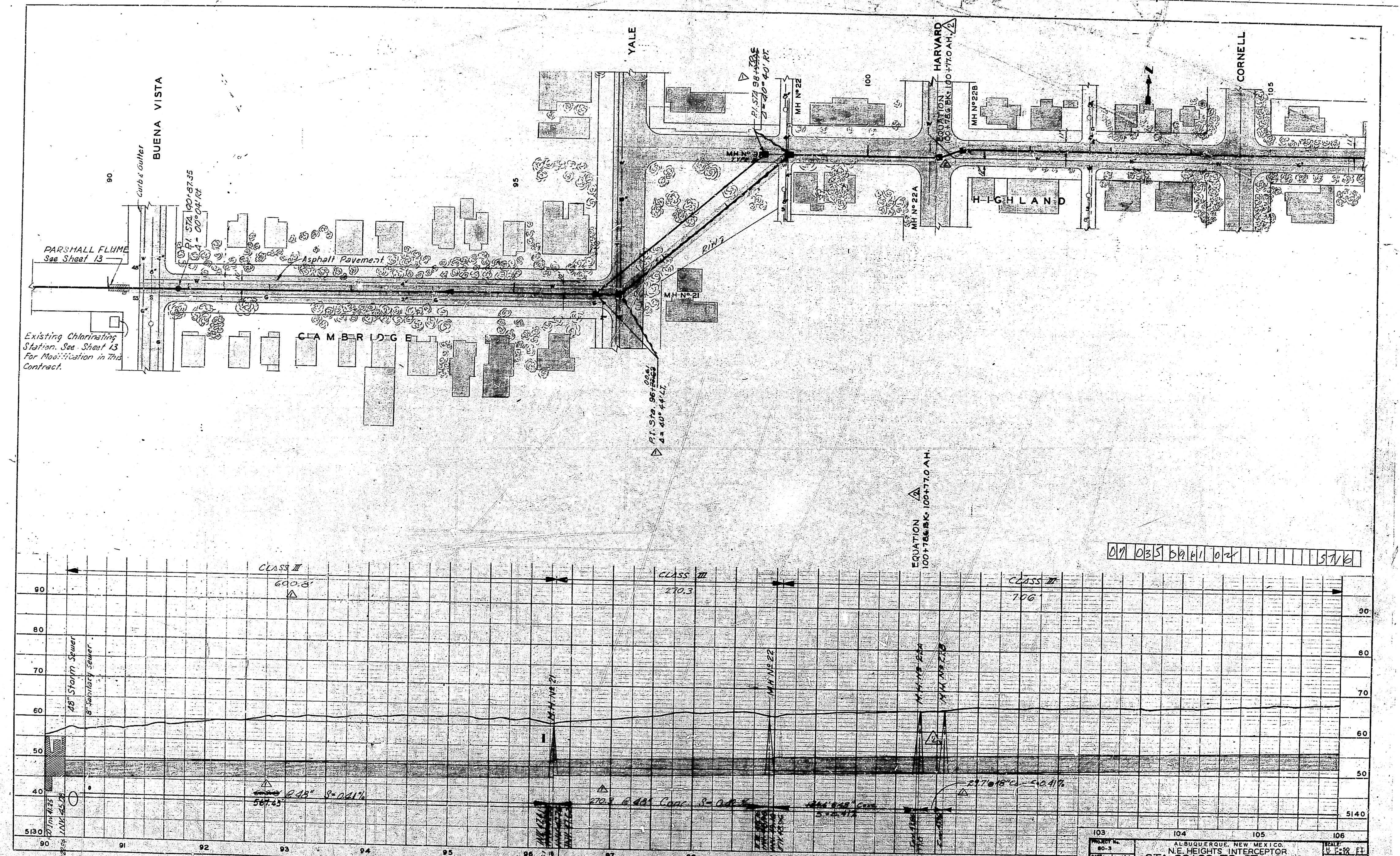
PROJECT No. 60-3
DATE: MAR 61

ALBUQUERQUE, NEW MEXICO.
N.E. HEIGHTS INTERCEPTOR
STA. 74+00 TO STA. 90+00
W. F. TURNEY & ASSOCIATES — CONSULTING ENGINEERS — SANTA FE, N. MEX.

SCALE: H 1" = 50 FT, V 1" = 10 FT
SHEET 8 OF

Revised 8-21-61

AS CONSTRUCTED


BUENA VISTA
YALE
HARVARD
CORNELL
CAMBRIDGE
HIGHLAND
RIN7
Curb & Gutter
PARSHALL FLUME
See Sheet 13
Asphalt Pavement
Existing Chlorinating Station. See Sheet 13 For Modification in This Contract.
P.I. STA. 90+87.35
Δ = 00°04' Rt.
P.I. Sta. 96+00.6
Δ = 40° 44' LT.
P.I. STA 98+70.6
Δ = 40° 40' RT.
EQUATION 100+78.6 BK = 100+17.0 AH.
MH Nº 21
MH Nº 22
MH Nº 22A
MH Nº 22B
MH Nº 22 TYPE
N
90
95
100
105
07 035 59 61 02 57 6
CLASS III
600.8'
CLASS III
270.3
CLASS III
706'
48" Storm Sewer
8" Sanitary Sewer
567.43 @ 48" S=0.41%
270.3 @ 48" Conc. S=0.41%
@ 48" Conc. S=0.41%
27.7' @ 18" Conc. S=0.41%
Inv 41.25
INV 45.08
M.H. Nº 21
M.H. Nº 22
M.H. Nº 22A
M.H. Nº 22B
90
80
70
60
50
40
5130
5140
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106

PROJECT No. 60-3

DATE: MAR 61

ALBUQUERQUE, NEW MEXICO.

N.E. HEIGHTS INTERCEPTOR

STA. 90+00 TO STA. 106+00

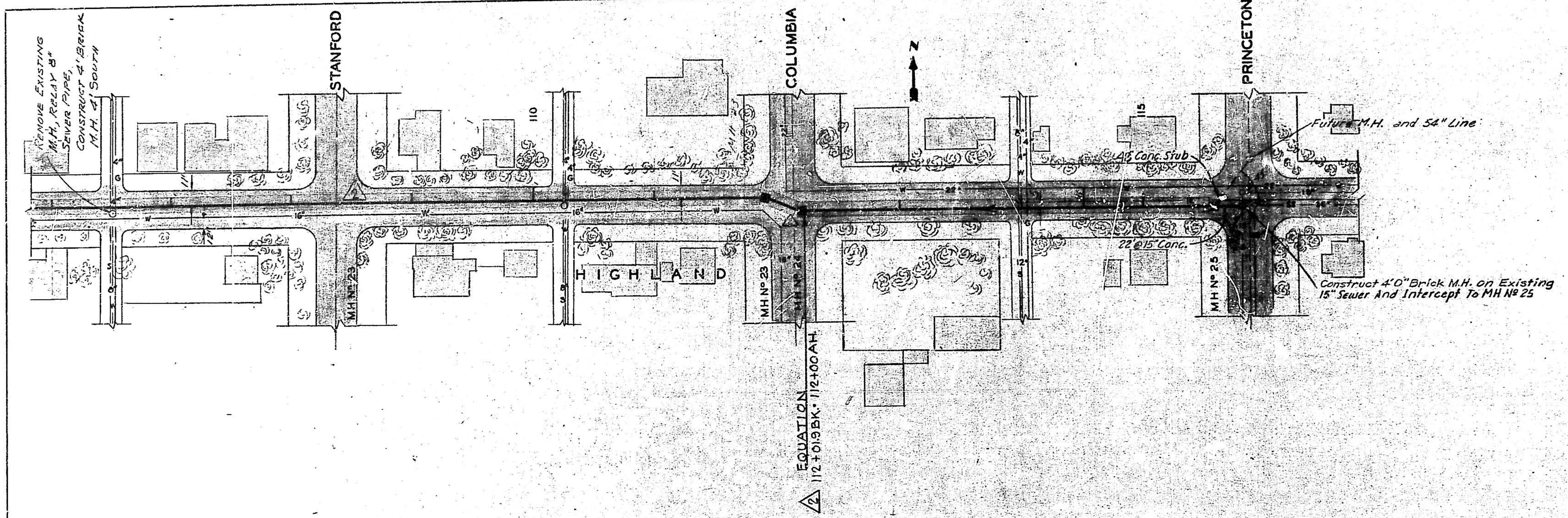
W. F. TURNEY & ASSOCIATES — CONSULTING ENGINEERS — SANTA FE, N. MEX.

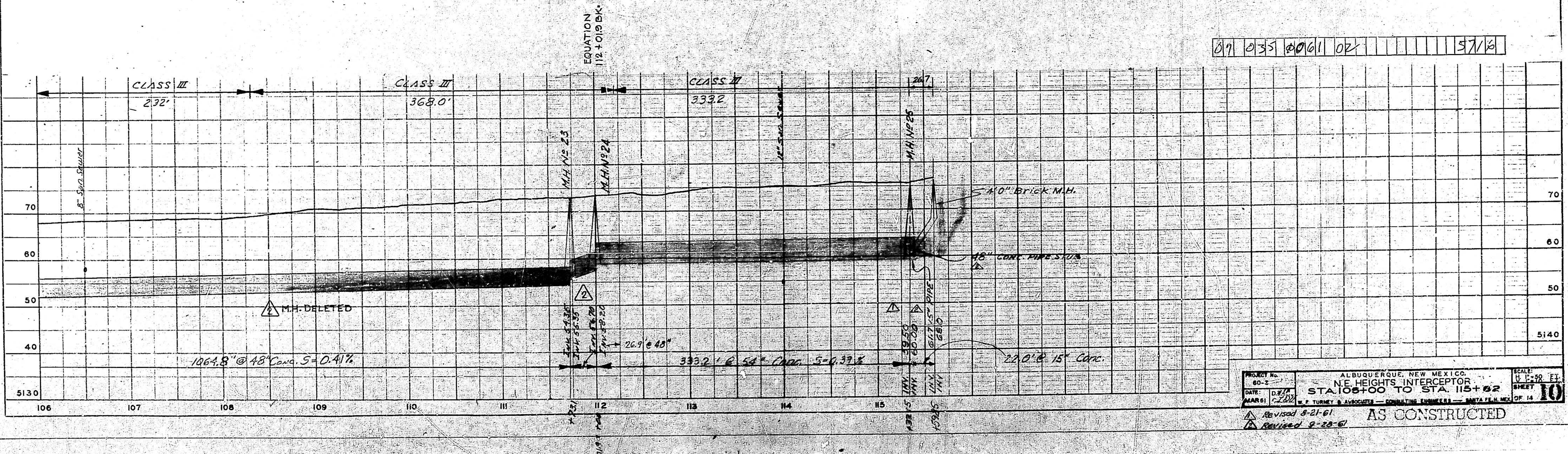
SCALE: H 1"=50 FT. V 1"=10 FT.

SHEET 9 OF 14

△1 Revised 8-21-61
△2 Revised 9-28-61

AS CONSTRUCTED


Remove Existing
M.H., Relay 8"
Sewer Pipe,
Construct 4' Brick
M.H. 4' South
STANFORD
COLUMBIA
PRINCETON
N
110
115
16"
W
G
S
4"
8"
12"
22"
HIGHLAND
MH Nº 23
MH Nº 23
MH Nº 24
MH Nº 25
48" Conc. Stub
22' @ 15" Conc.
Future M.H. and 54" Line
Construct 4'0" Brick M.H. on Existing
15" Sewer And Intercept To MH Nº 25
EQUATION
112+01.9 BK.• 112+00 AH.


EQUATION
112+01.9 BK.• 112+00 AH.
CLASS III
232'
CLASS III
368.0'
CLASS III
333.2
26.7
8" San. Sewer
12" San. Sewer
M.H. Nº 23
M.H. Nº 24
M.H. Nº 25
4'0" Brick M.H.
48" Conc. Pipe Stub
M.H. DELETED
Inv. 54.35
Inv. 55.35
Inv. 56.70
Inv. 58.20
26.9' @ 48"
1064.8' @ 48" Conc. S=0.41%
333.2' @ 54" Conc. S=0.39%
Inv. 59.50
Inv. 60.00
Inv. 61.7 15" Pipe
Inv. 68.0
22.0' @ 15" Conc.
70
60
50
40
5130
5140
106
107
108
109
110
111
112
113
114
115
+73.1
+01.9
+33.5
+59.5

07 035 0061 02 5716

Project No. 60-3

Date: MAR 61

D. ~~[illegible]~~ CLD

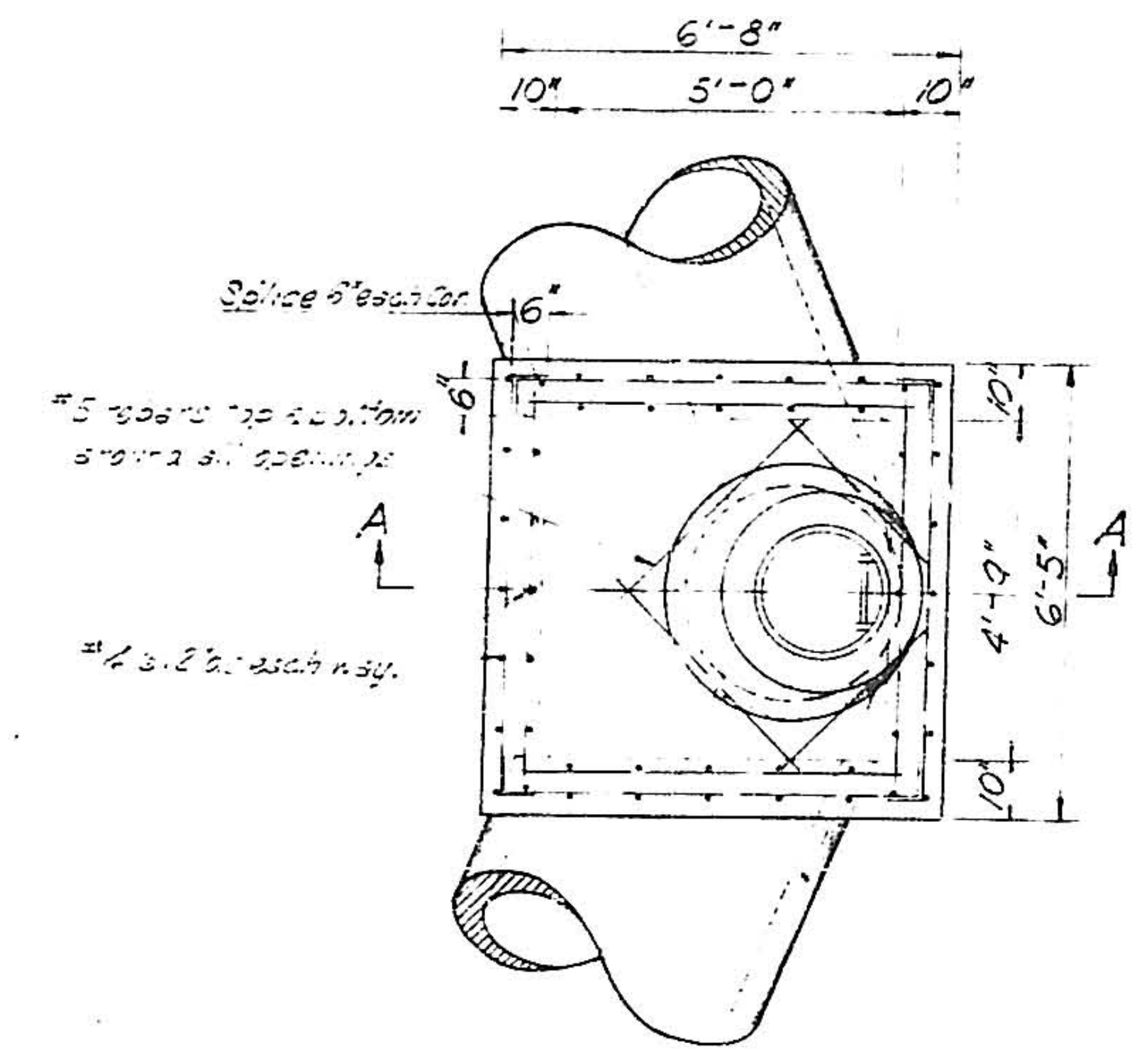
ALBUQUERQUE, NEW MEXICO
N.E. HEIGHTS INTERCEPTOR
STA. 105+00 TO STA. 115+62
W. P. TURNEY & ASSOCIATES — CONSULTING ENGINEERS — SANTA FE, N. MEX.

Scale:
H. 1"=50 FT.
V. 1"=10 FT.

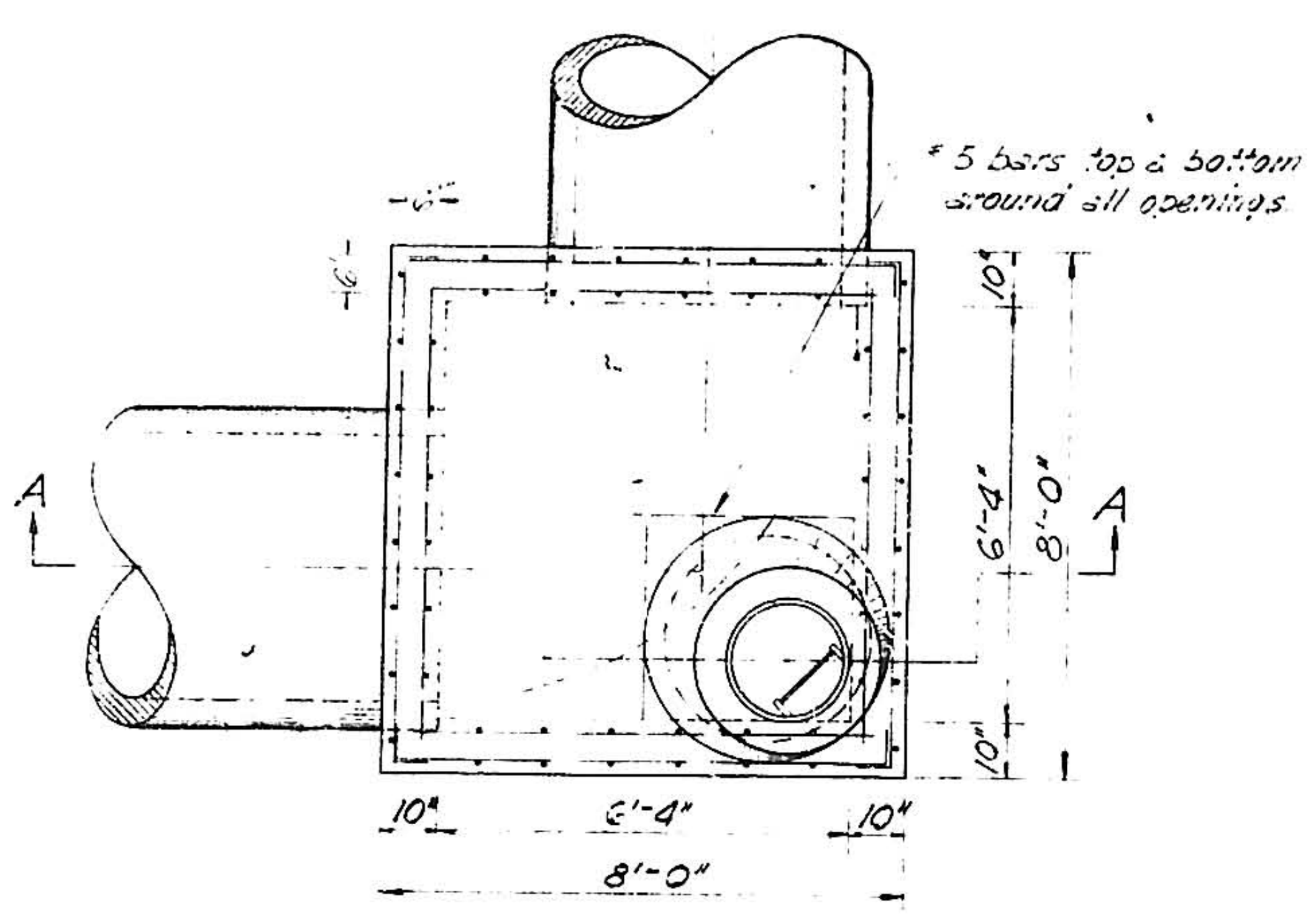
Sheet 10 of 14

1 Revised 8-21-61
2 Revised 9-28-61

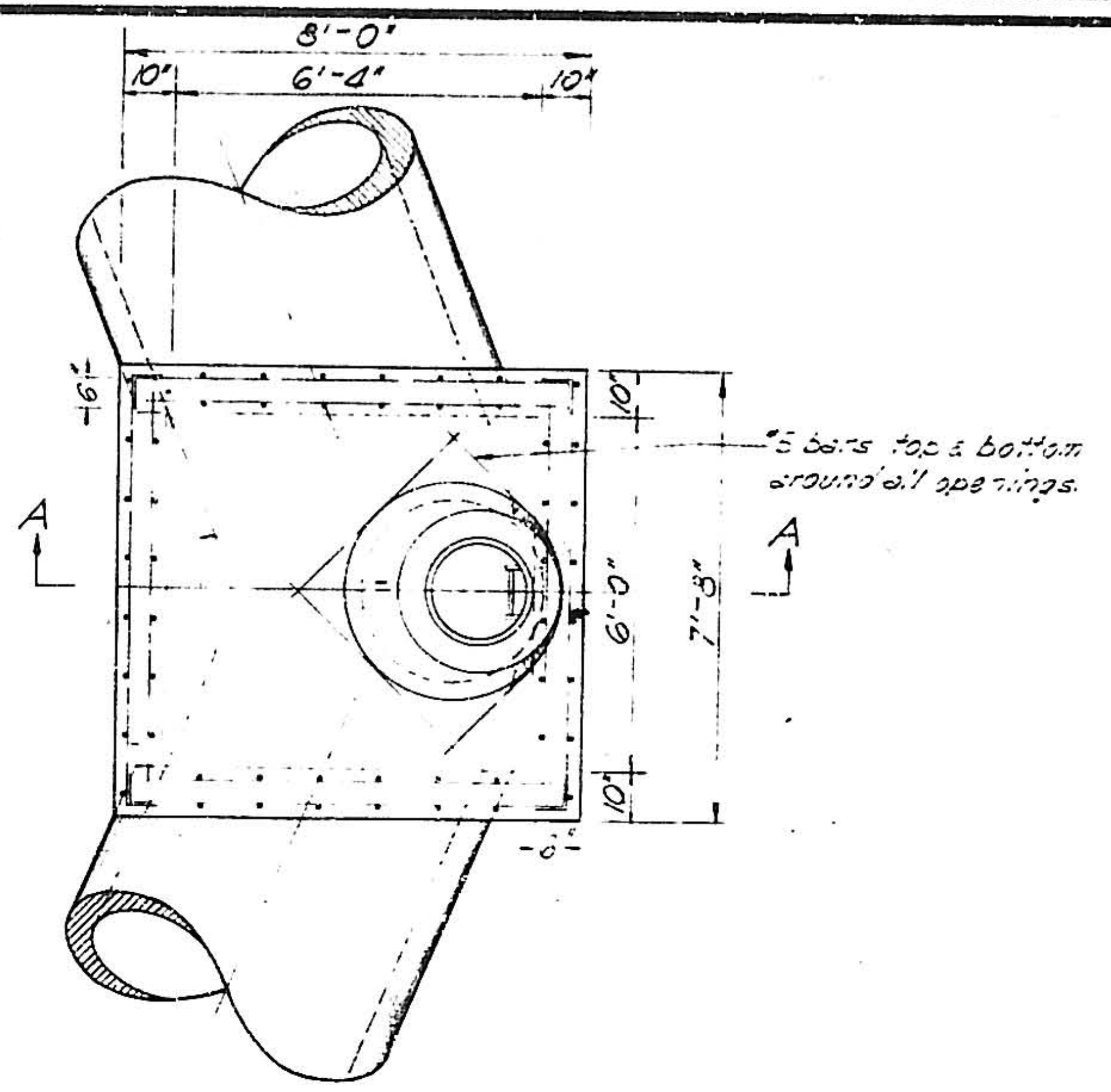
AS CONSTRUCTED


6'-8"
10"
5'-0"
10"
Splice 6" each bar
#5 bars top & bottom around all openings
#4 @ 12" each way
A
4'-9"
6'-5"
10"

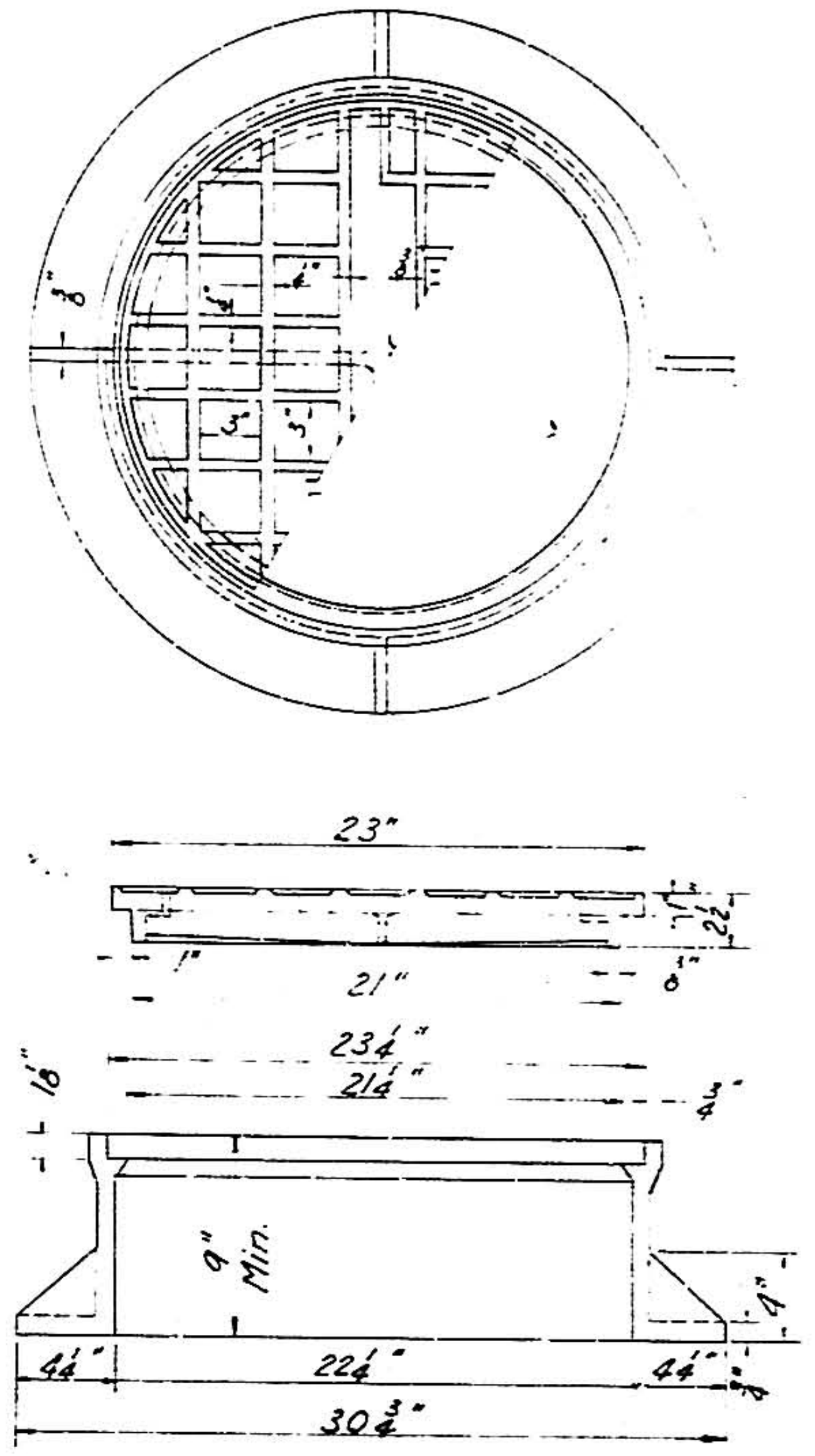
TOP PLAN


#5 bars top & bottom around all openings
A
6'-4"
8'-0"
10"
6'-4"
8'-0"

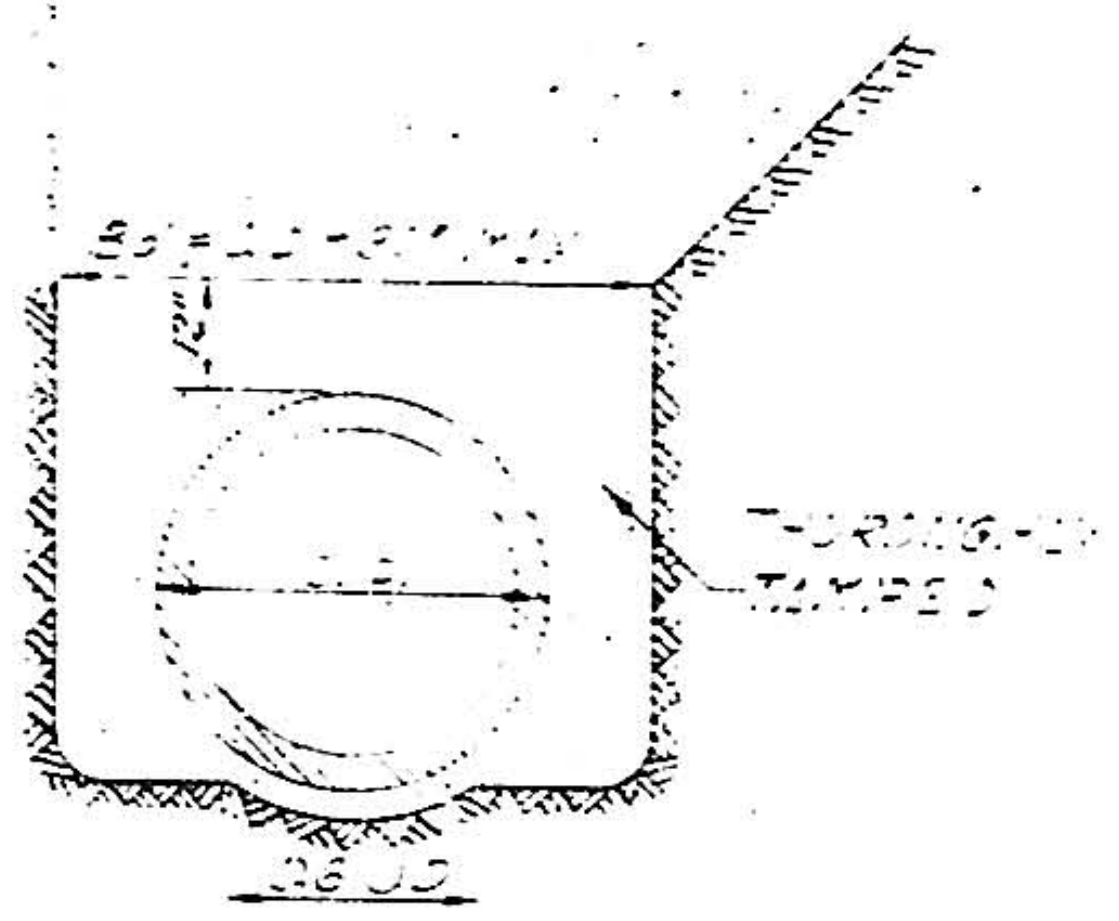
TOP PLAN


8'-0"
10"
6'-4"
10"
#5 bars top & bottom around all openings.
A
6'-0"
7'-8"
10"

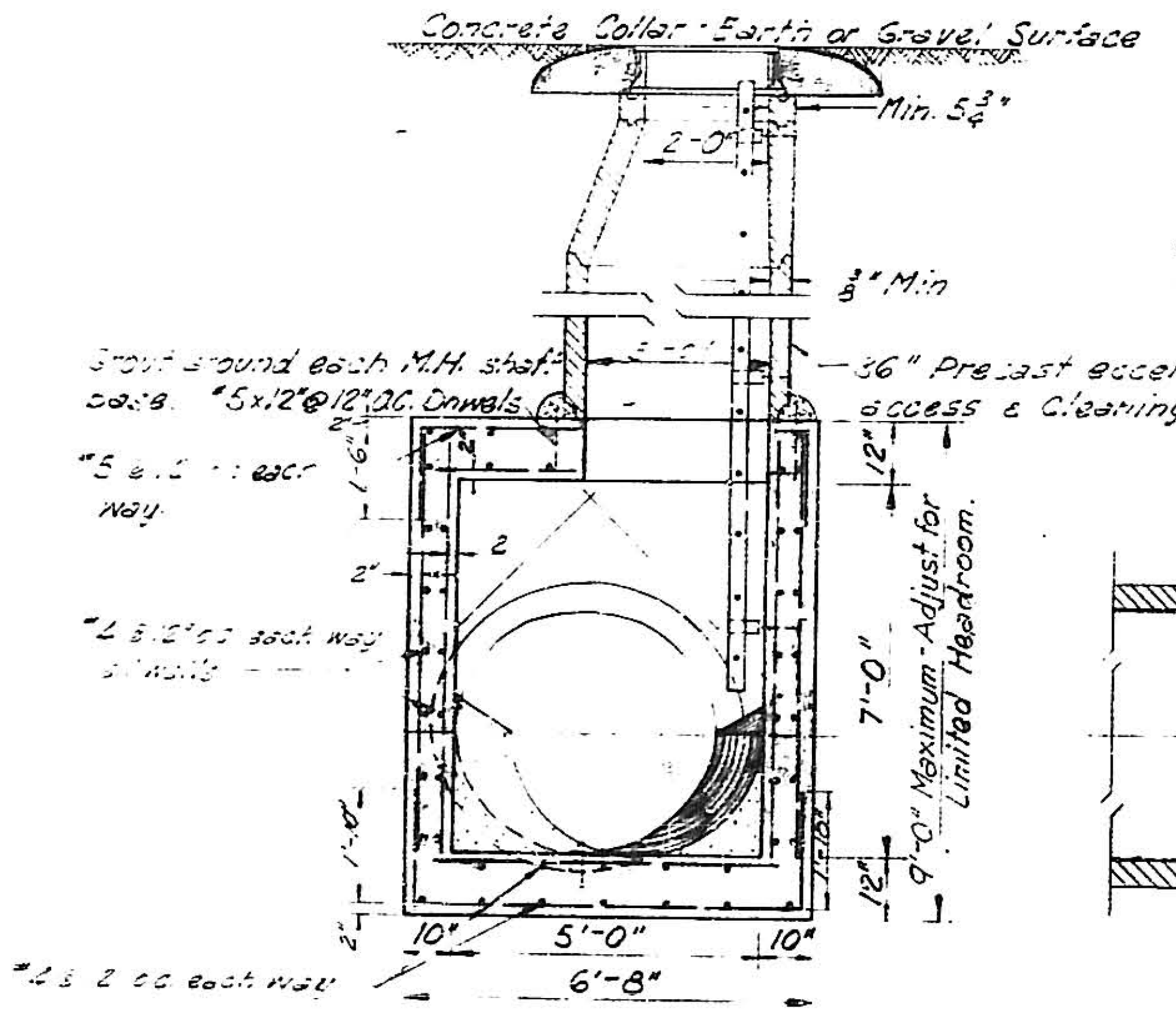
TOP PLAN


23"
1"
21"
23¼"
21¼"
9" Min.
4¼"
22¼"
4¼"
30¾"

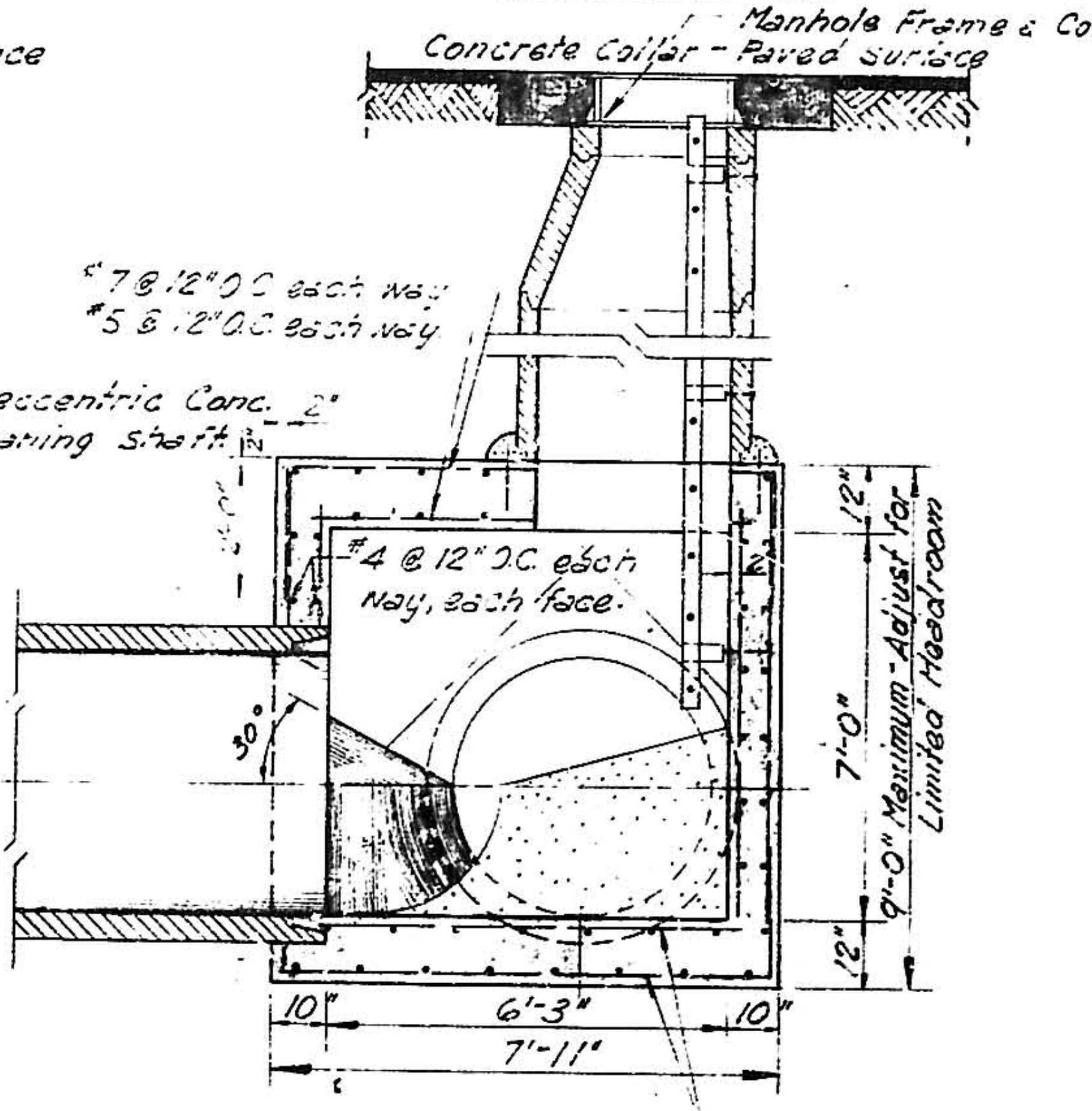
CAST IRON MANHOLE RING AND COVER



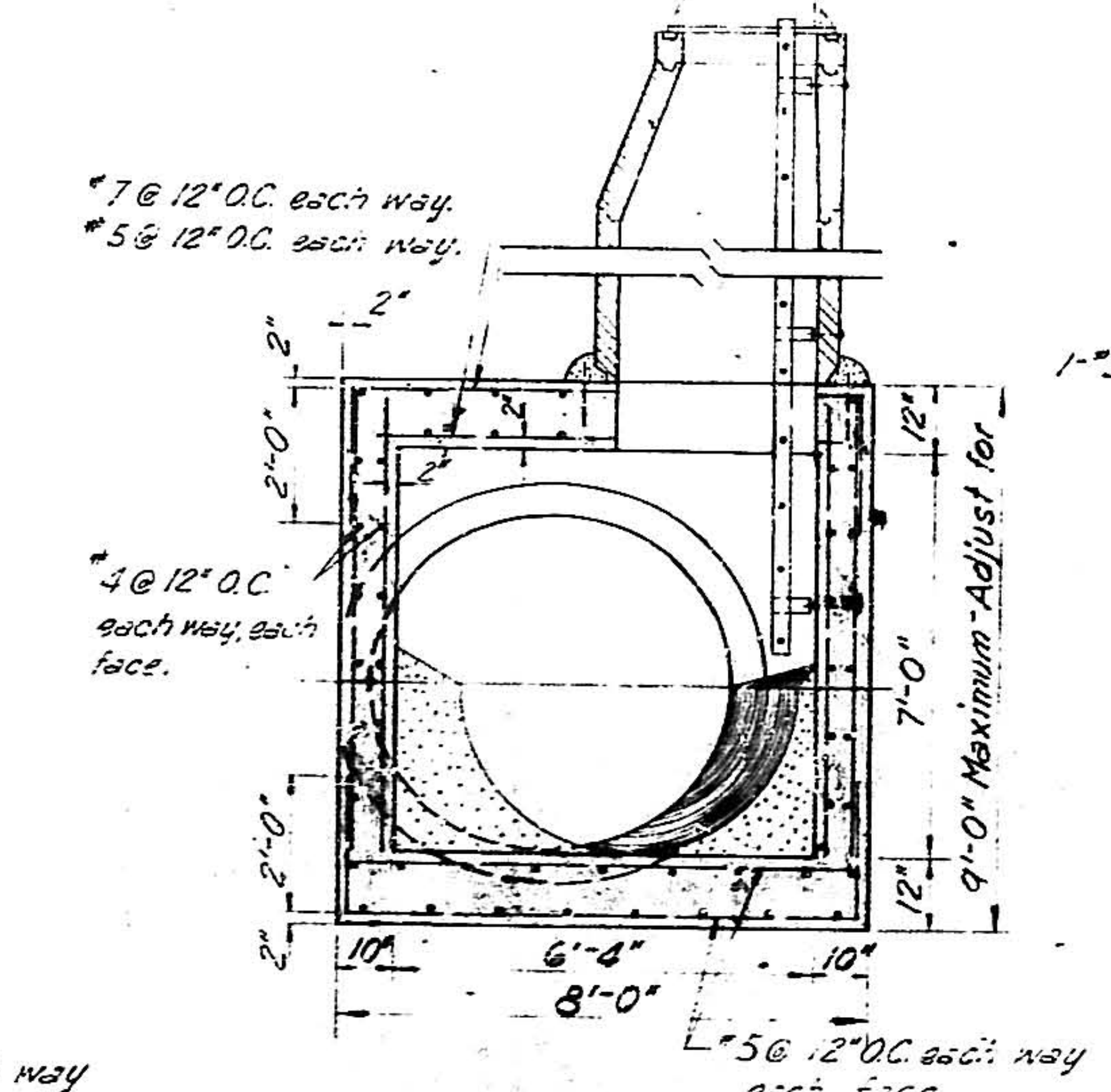
PIPE BEDDING DETAIL


Concrete Collar - Earth or Gravel Surface
Min. 5¾"
2'-0"
¾" Min.
Grout around each M.H. shaft base. #5x12" @ 12" O.C. Dowels
36" Precast eccentric Conc. access & Cleaning shaft
#5 @ 12" each way
#4 @ 12" O.C. each way
7'-0"
9'-0" Maximum - Adjust for Limited Headroom
#4 @ 12" O.C. each way
10"
5'-0"
10"
6'-8"

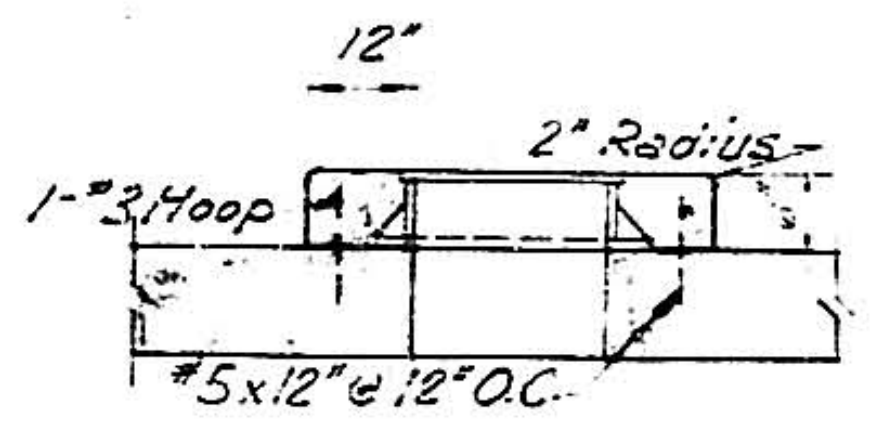
SECTION A-A


Manhole Frame & Cover
Concrete Collar - Paved Surface
#7 @ 12" O.C. each way
#5 @ 12" O.C. each way
#4 @ 12" O.C. each way, each face.
30°
7'-0"
9'-0" Maximum - Adjust for Limited Headroom
10"
6'-3"
10"
7'-11"
#5 @ 12" O.C. each way each face.

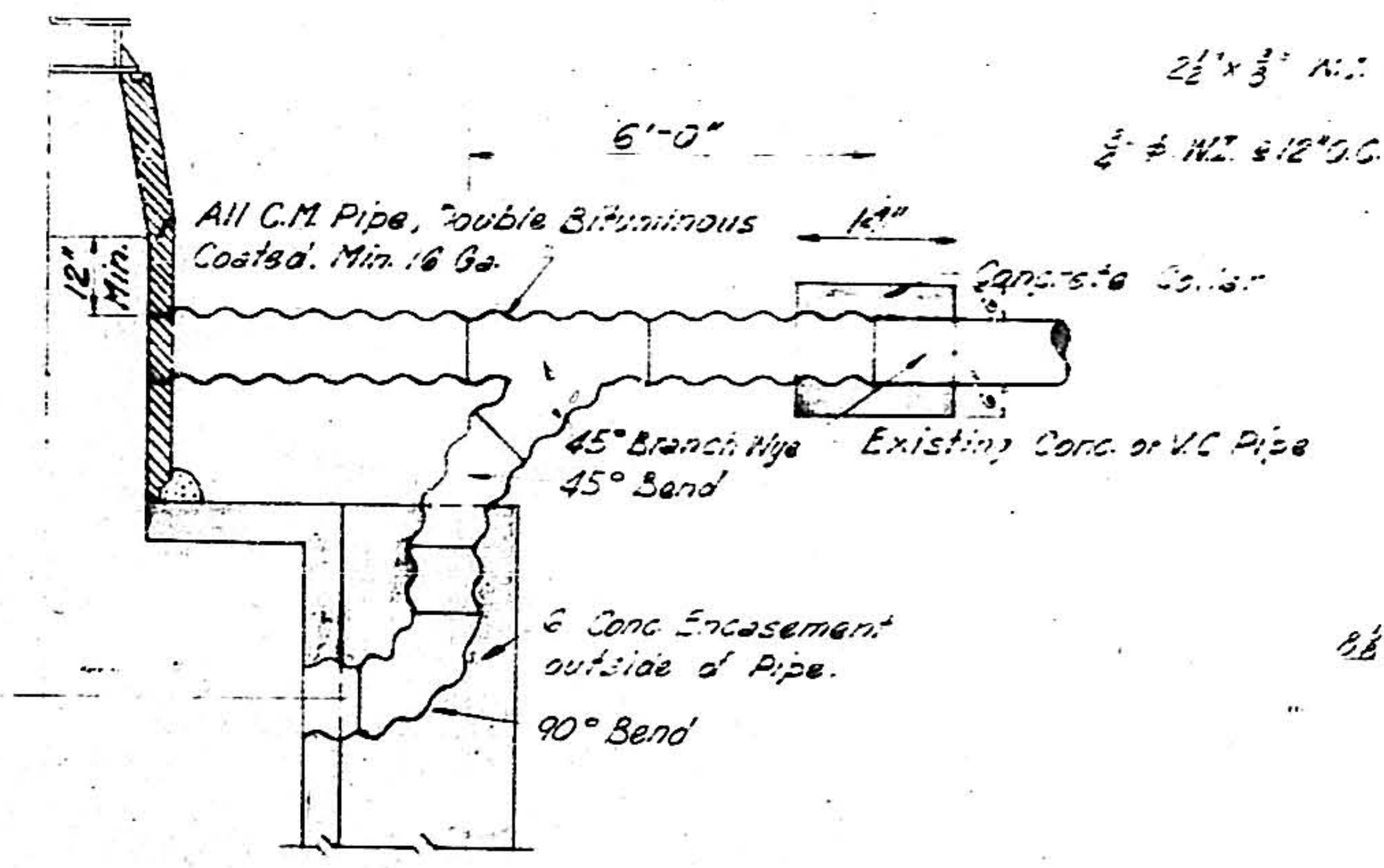
SECTION A-A


#7 @ 12" O.C. each way.
#5 @ 12" O.C. each way.
#4 @ 12" O.C. each way, each face.
7'-0"
9'-0" Maximum - Adjust for Limited Headroom
10"
6'-4"
10"
8'-0"
#5 @ 12" O.C. each way each face.

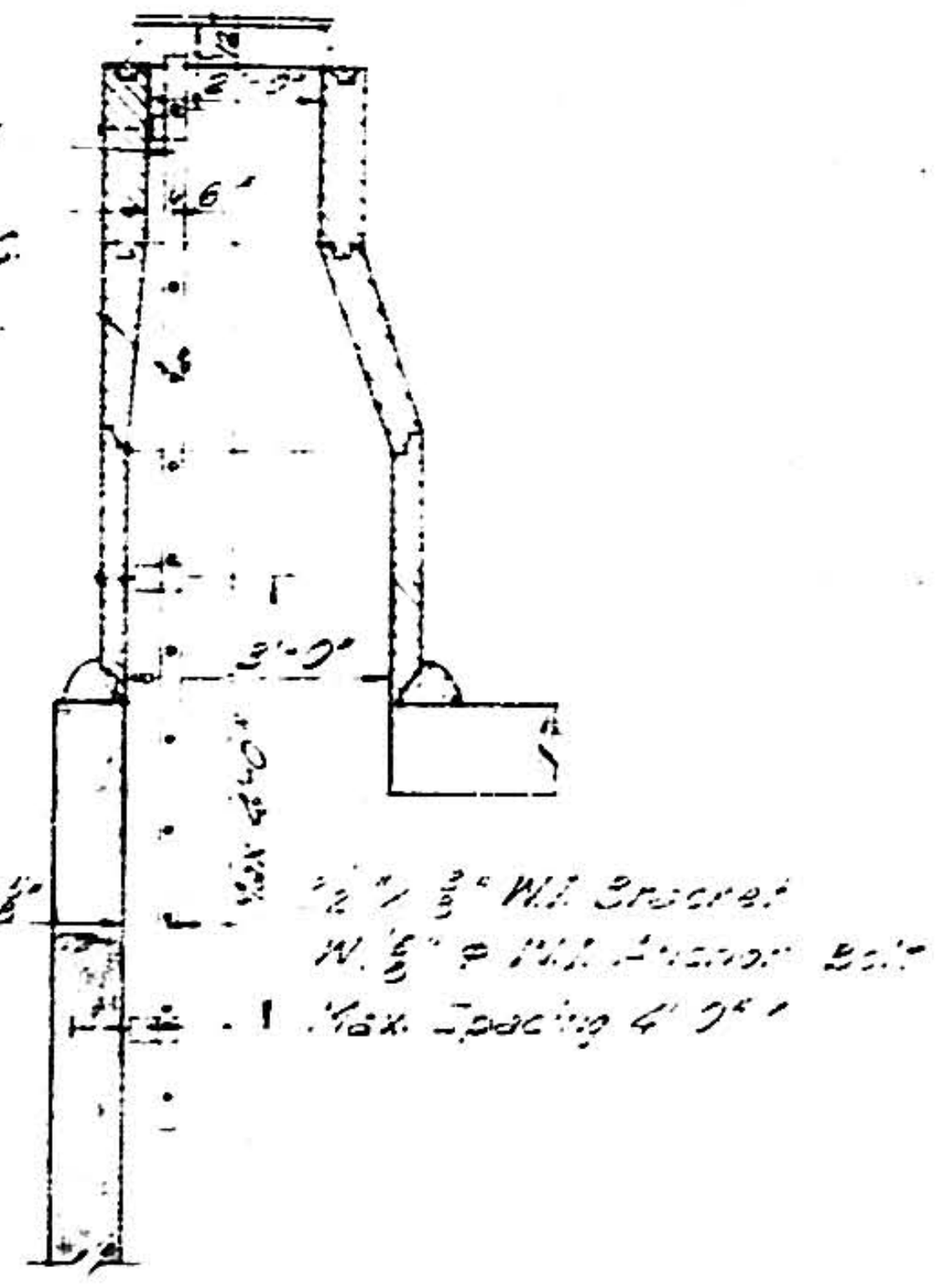
SECTION A-A


12"
2" Radius
1-#3 Hoop
#5x12" @ 12" O.C.

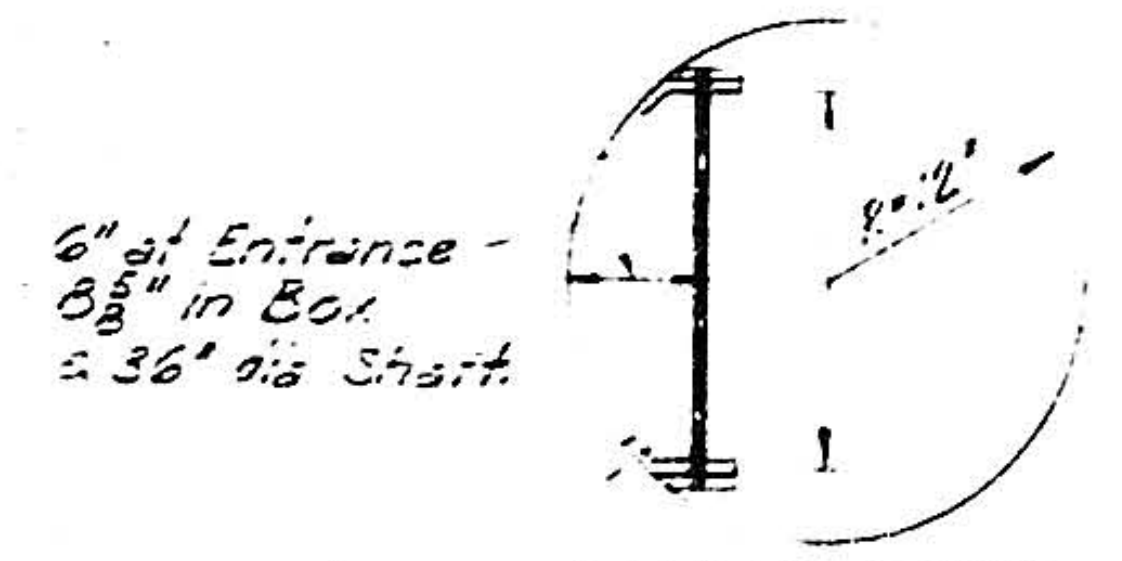
COVER AT SHALLOW MANHOLE


6'-0"
All C.M. Pipe, Double Bituminous Coated. Min. 16 Ga.
12" Min.
Concrete Collar
45° Branch Wye
45° Bend
Existing Conc. or V.C. Pipe
6" Conc. Encasement outside of Pipe.
90° Bend

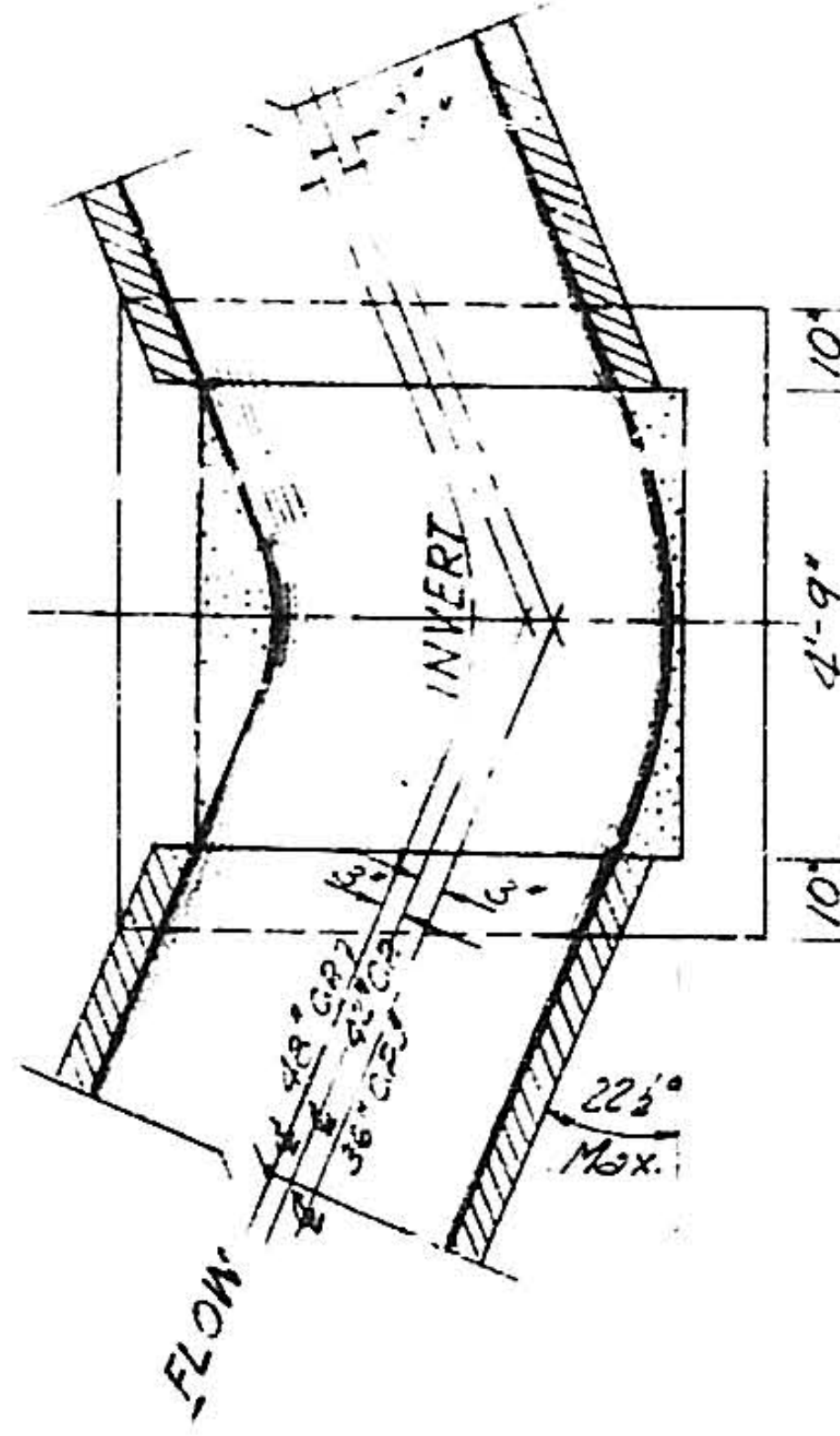
DROP CONNECTION


2½" x ¾" M.I.
¾" ϕ W.I. @ 12" O.C.
3'-0"
2½" x ¾" W.I. Bracket
W. ¾" ϕ W.I. Anchor Bolt
Max. Spacing 4'-0"

SECTION

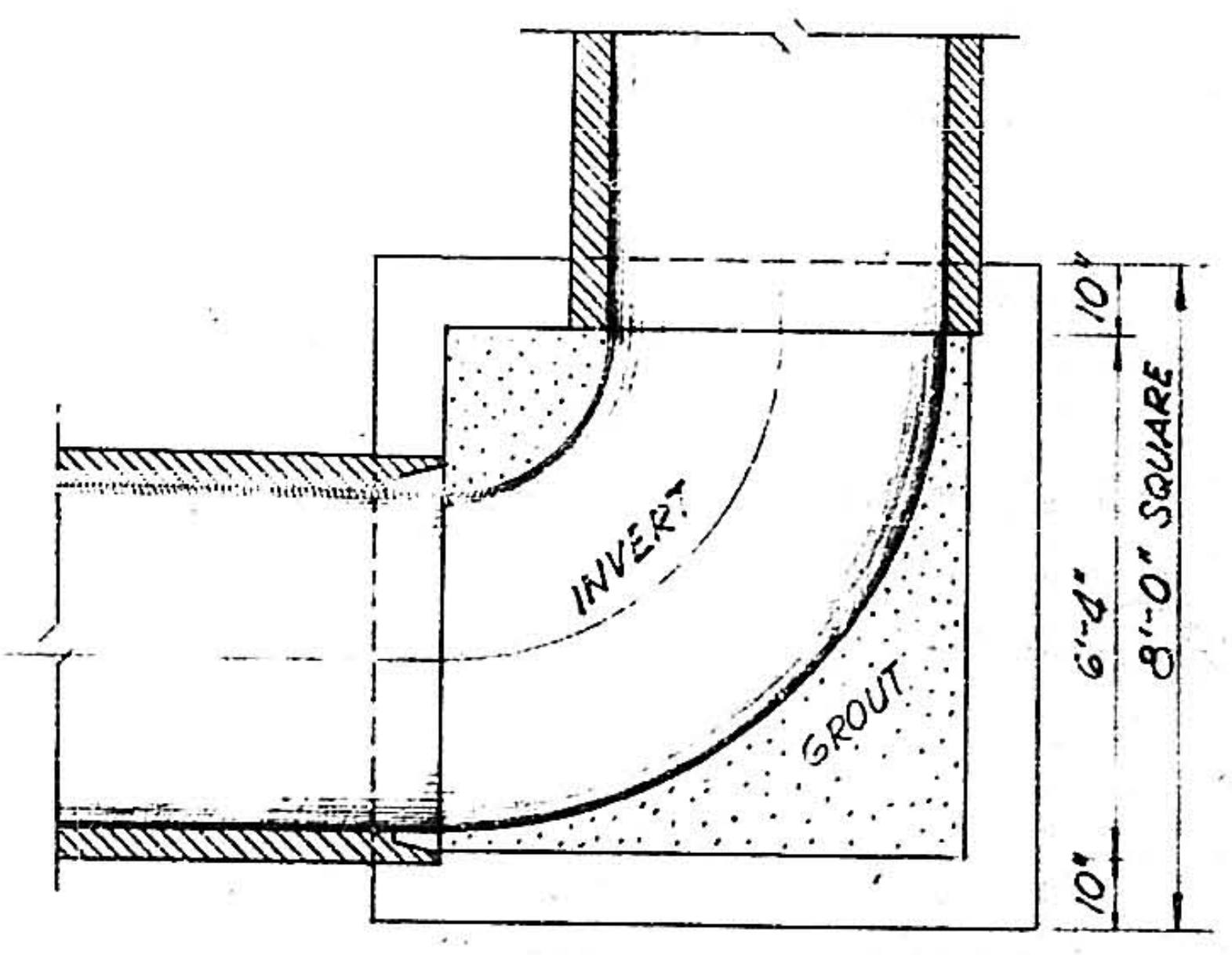

6" at Entrance - 8⅝" in Box & 36" dia Shaft.

LADDER DETAIL PLAN


INVERT
10"
4'-9"
6'-5"
22½° Max.
FLOW

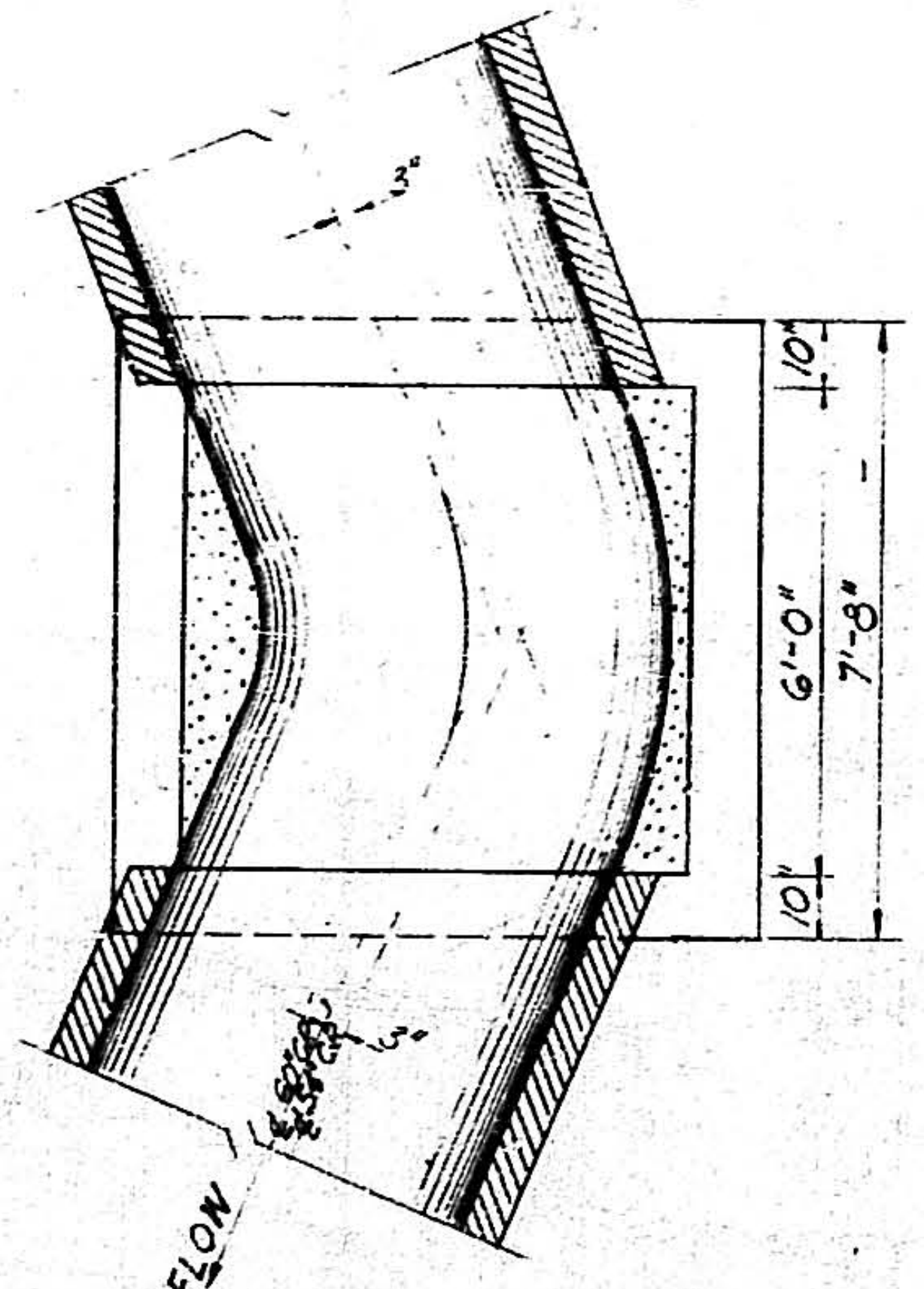
PIPE SIZES 36" to 48" I.D.
Δ = 0° to 45°

FLOOR PLAN-TYPE A


INVERT
GROUT
10"
6'-4"
8'-0" SQUARE

PIPE SIZES 36" to 48" I.D.
Δ = 46° to 90°

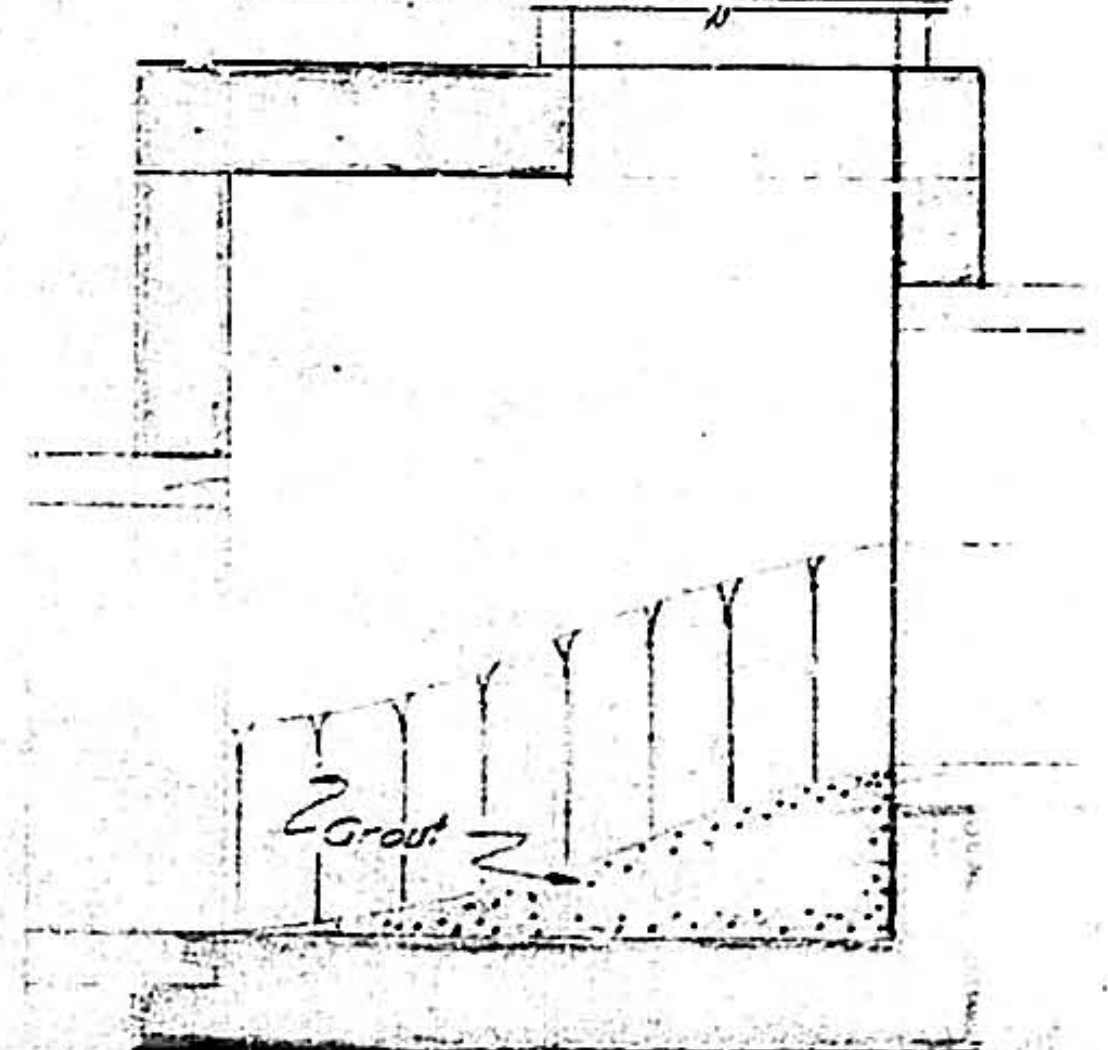
FLOOR PLAN-TYPE B


10"
6'-0"
7'-8"
FLOW

PIPES 54" to 60" I.D.
Δ = 0° to 45°

FOR Δ = 46° to 90° USE 2 MH's WITH CONNECTING PIPE, Δ/2 AT EACH M.H.

FLOOR PLAN-TYPE C



GROUTING

07 035 11 61 10

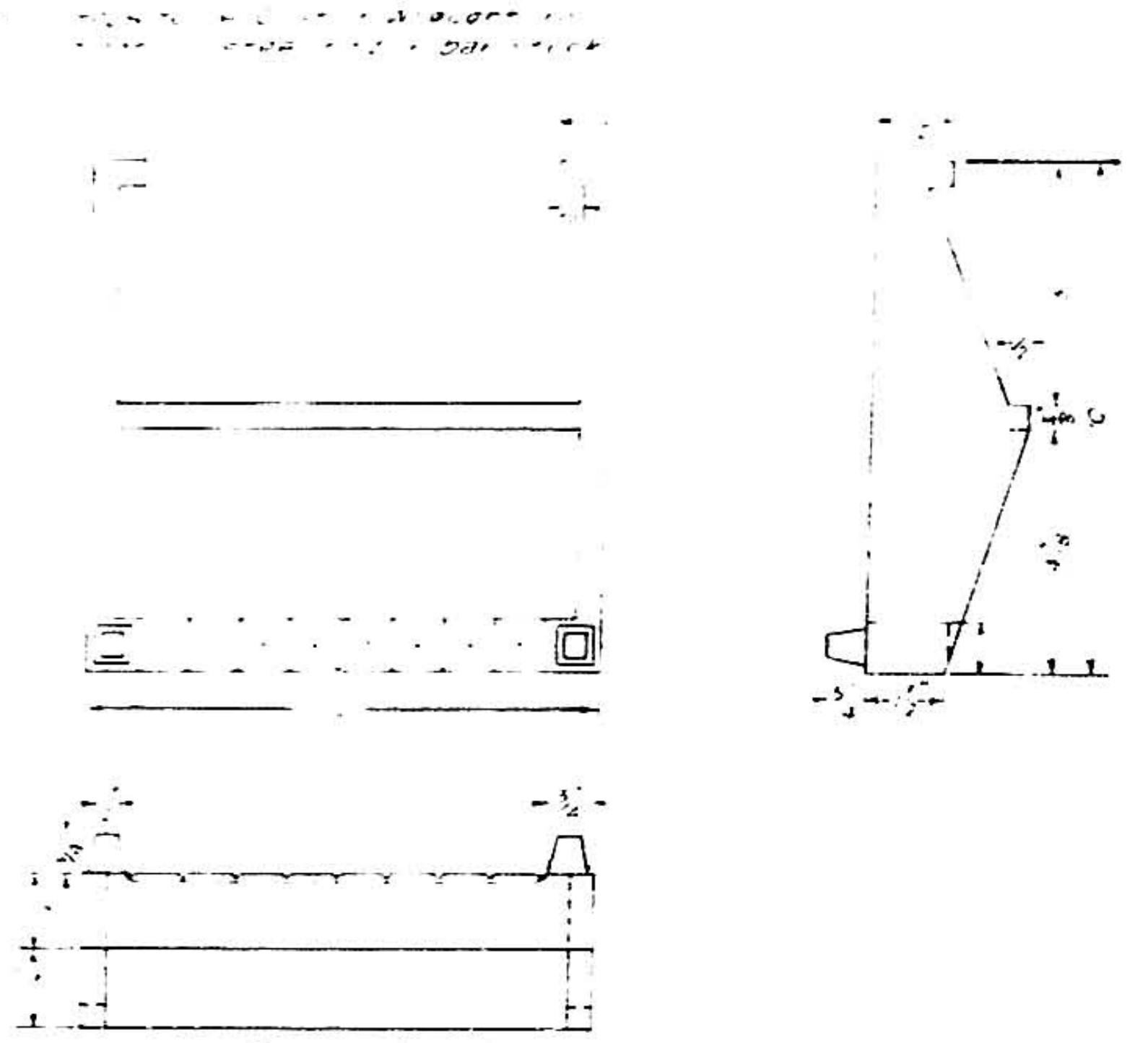
W. F. TURNEY
AND ASSOCIATES
CONSULTING ENGINEERS
SANTA FE. NEW MEXICO

ALBUQUERQUE, NEW MEXICO
STANDARD MANHOLE
DETAILS-CONCRETE PIPE
36"-60"

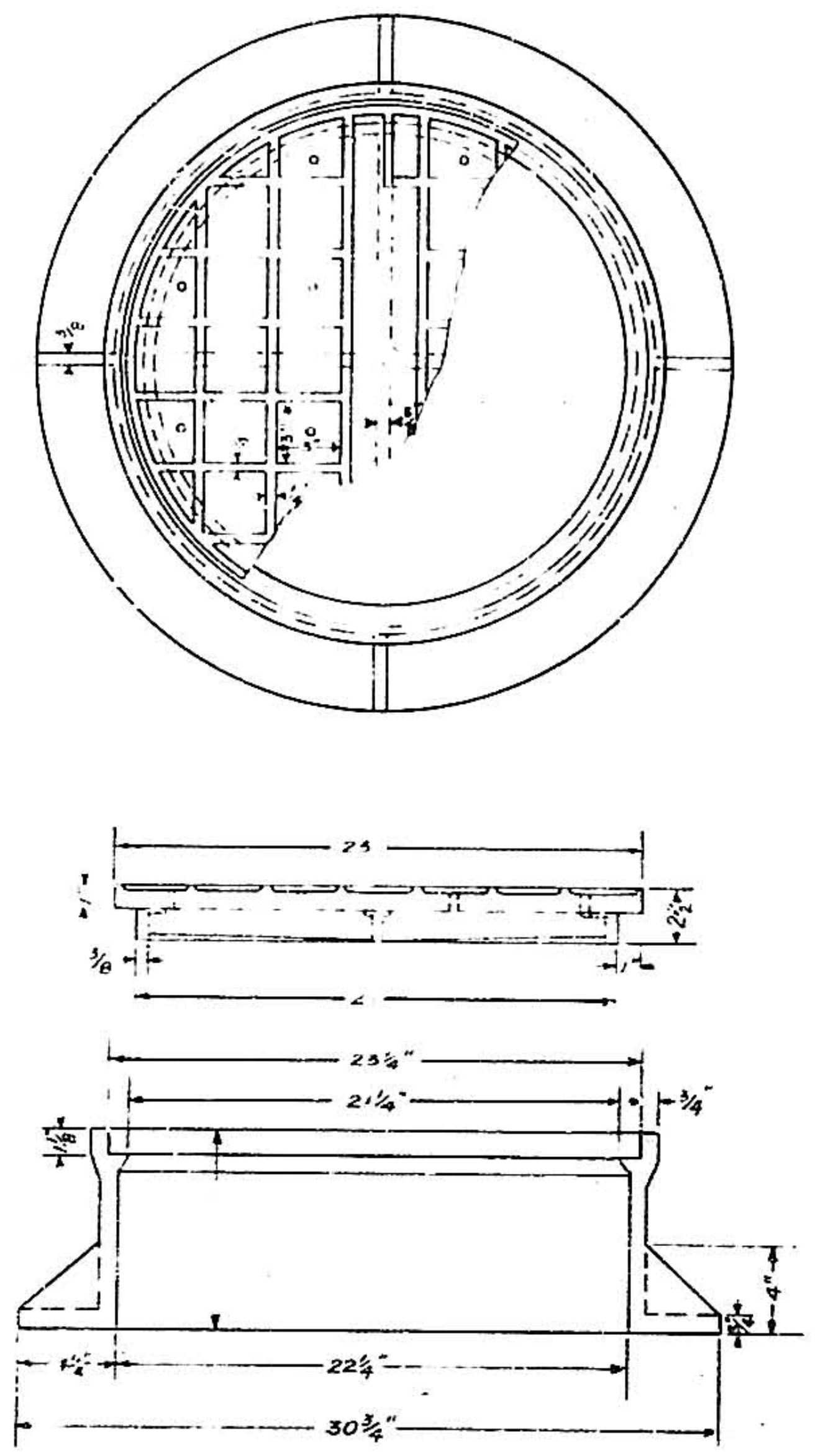
BY	REVISION	DATE

O.A.E. DESIGNATES OR APPROVED EQUAL

DRAWN	CHECKED	PROJECT NO.	SCALE	DATE	SHEET
		60-3	3/8" = 1'	MAR 61	11 OF 14


MANHOLE STEP

CAST IRON - 4# M.A.

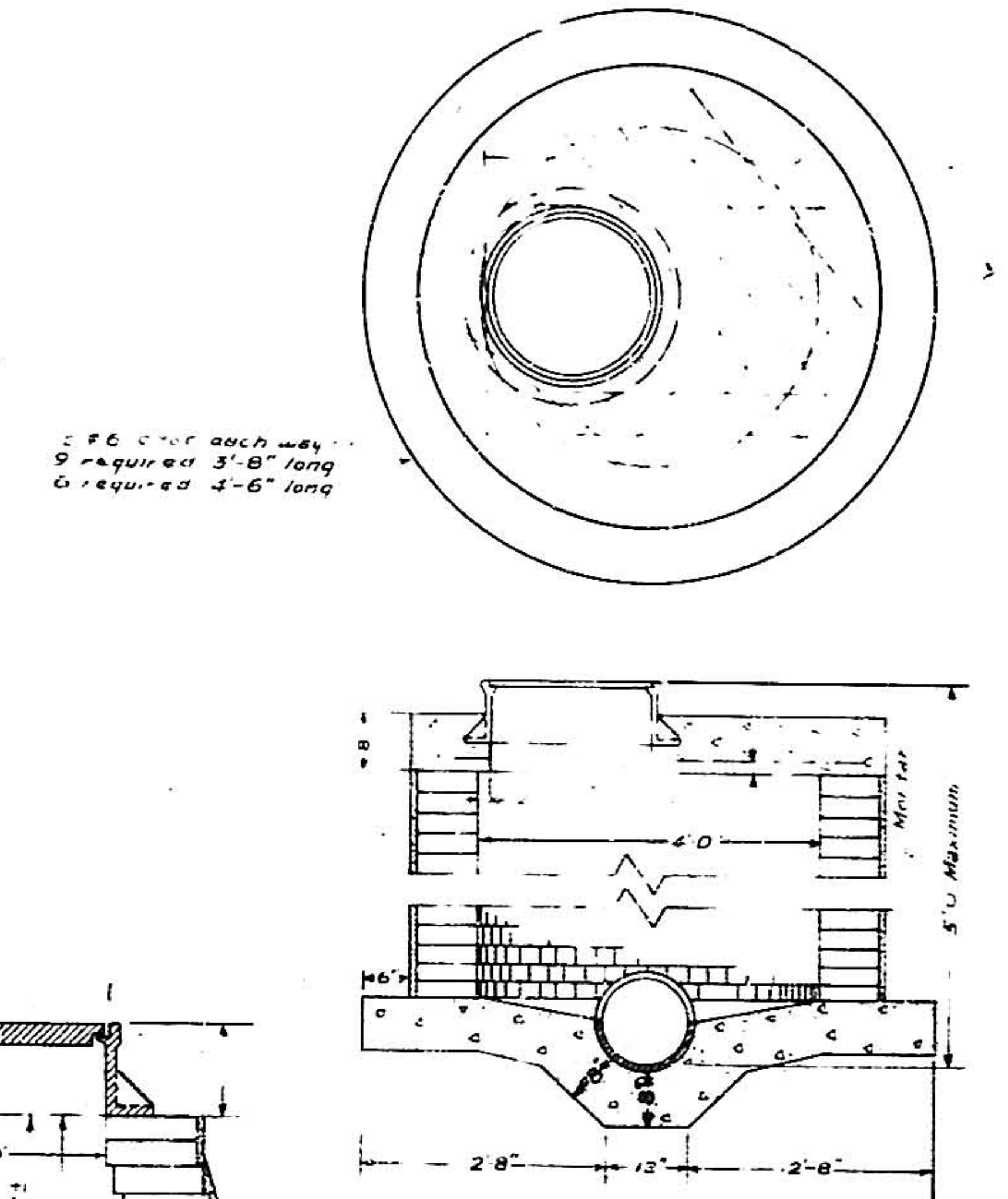

30¾"
22¾"
25⅝"
21⅛"

MANHOLE RING & COVER

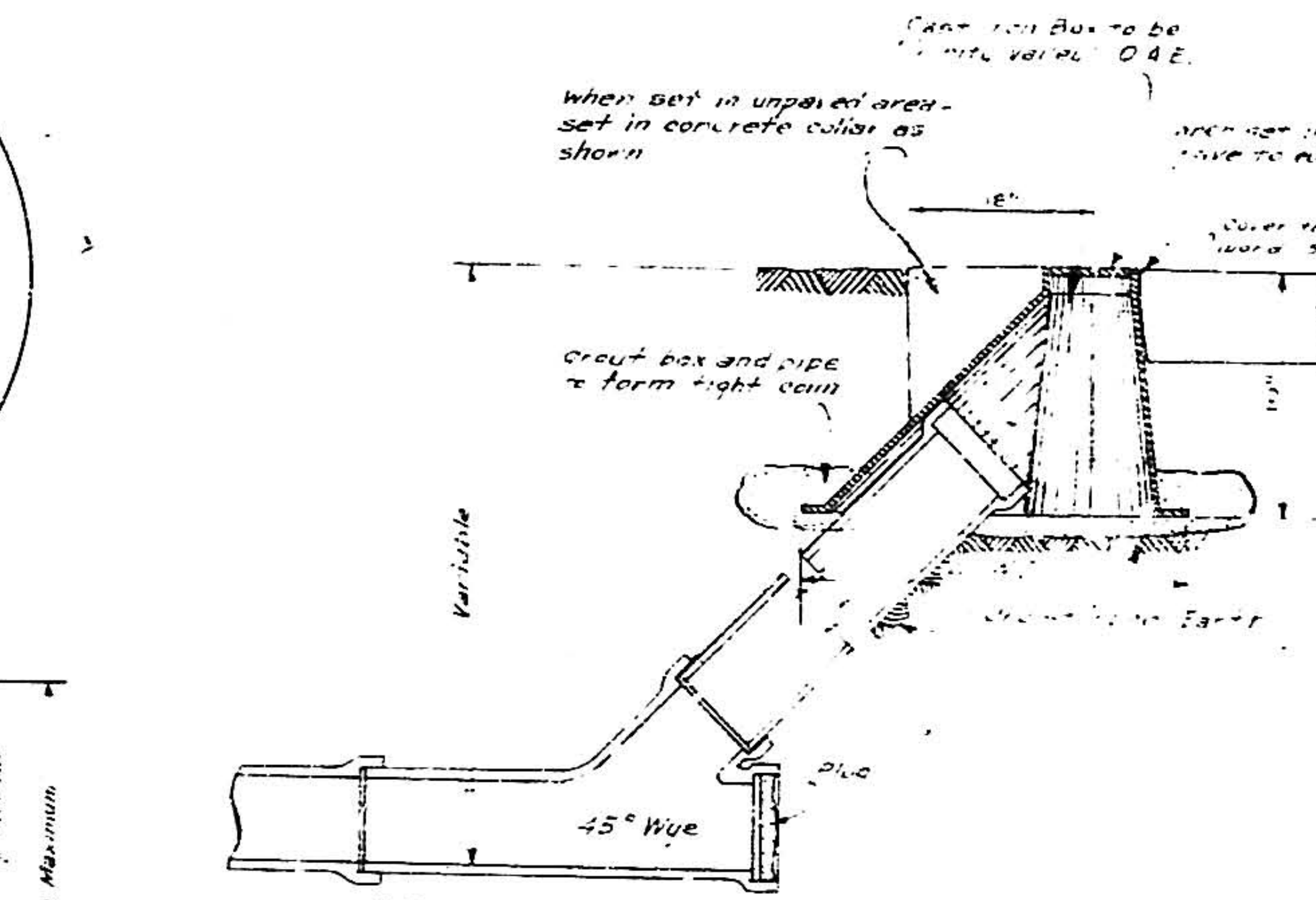
CAST IRON-

SOLID COVER WITHOUT VENT HOLES.
PAINT INSIDE OF RING & BOTTOM OF COVER & STEPS WITH 2 COATS OF "INERTOL" BLACK PAINT-
ALL COVERS TO HAVE "SEWER" INTEGRALLY CAST ON TOP

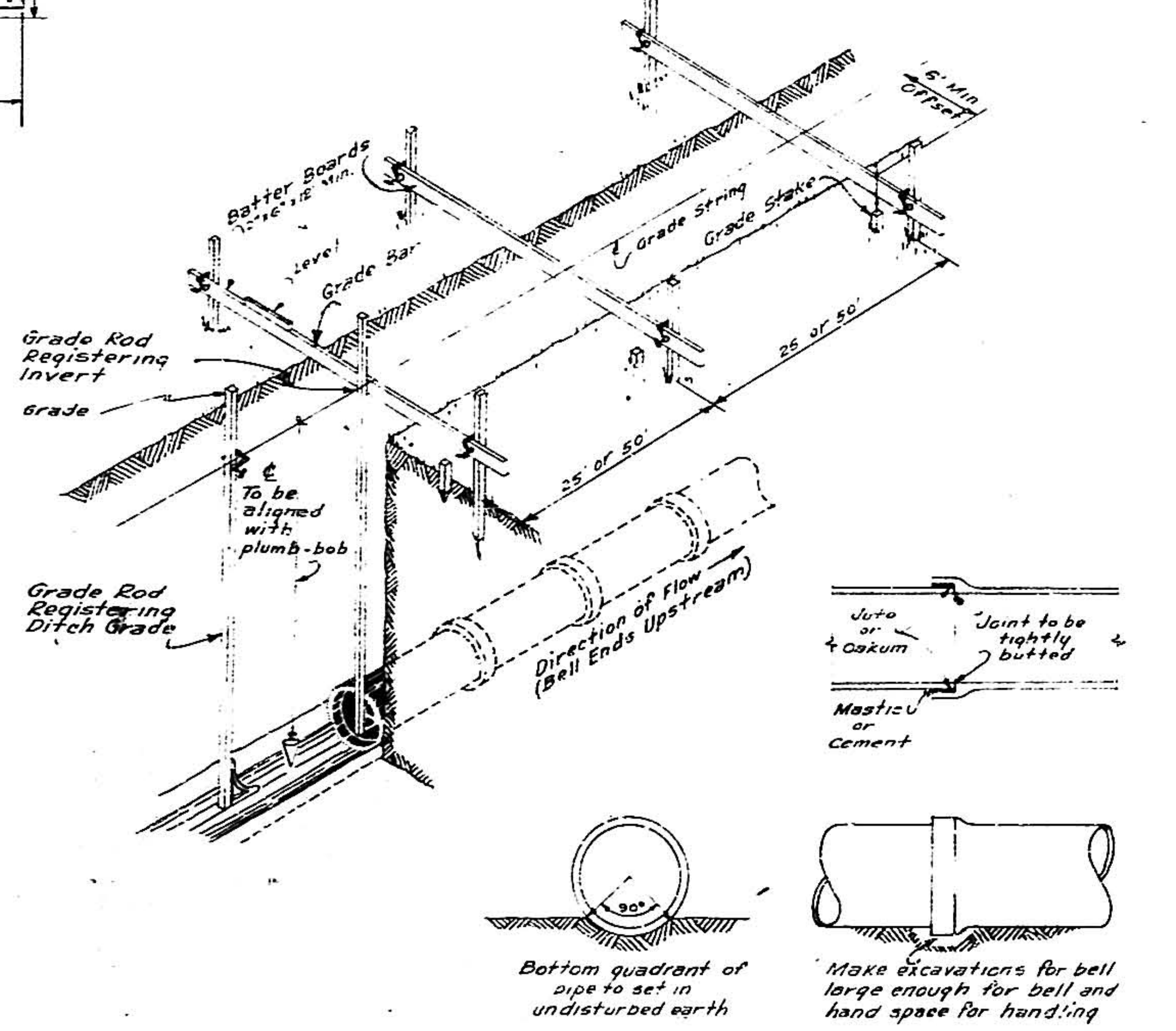
Where depth of invert is less than 5'-0" use shallow type with flat concrete top


#6 bar each way
9 required 3'-8" long
6 required 4'-6" long
4'-0"
Mortar
5'0" Maximum
6"
2'-8"
12"
2'-8"

STANDARD SHALLOW MANHOLE


Cast Iron Box to be
when set in unpaved area - set in concrete collar as shown
18"
Grout box and pipe to form tight conn
Variable
Undisturbed Earth
Plug
45° Wye

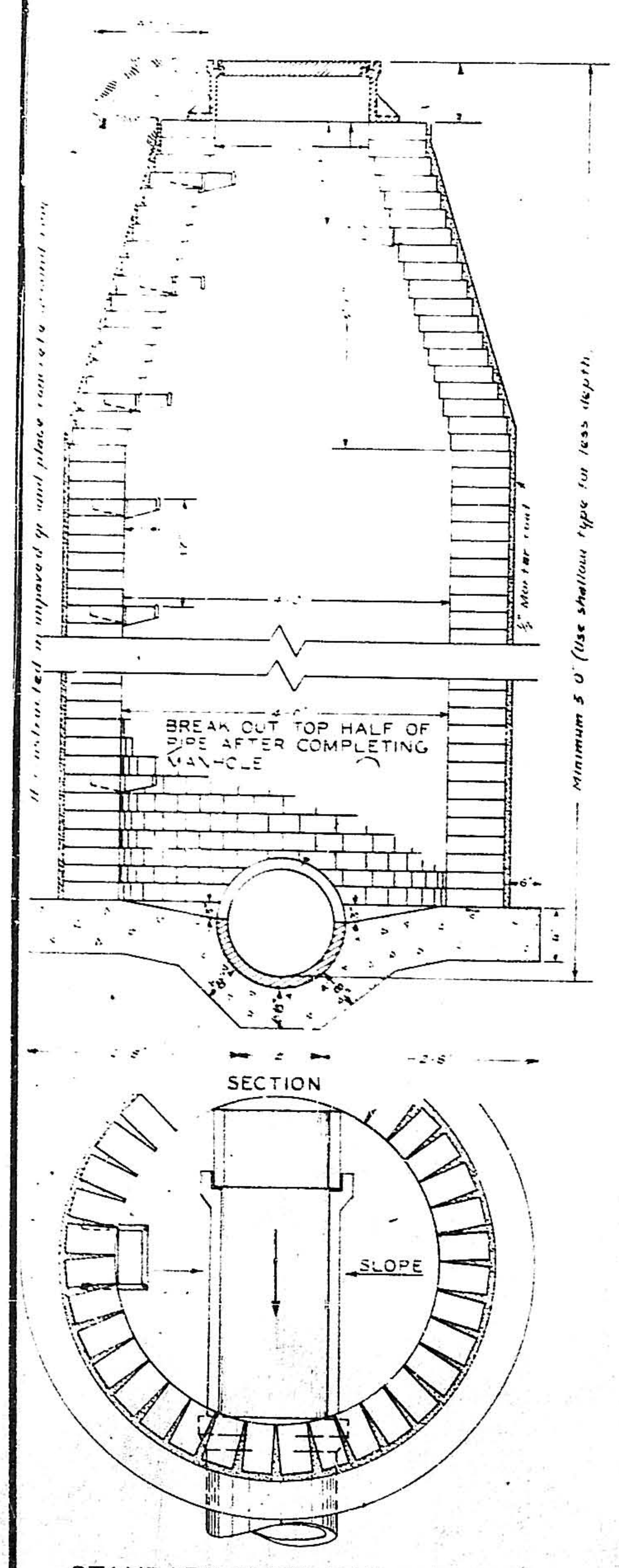
SECTION THRU STD. CLEAN-OUT CAST IRON COVER


Batter Boards
Level
Grade Bar
Grade String
Grade Stake
6' Min Offset
Grade Rod Registering Invert
Grade
25' or 50'
25' or 50'
To be aligned with plumb-bob
Grade Rod Registering Ditch Grade
Direction of Flow (Bell Ends Upstream)
Jute or Oakum
Joint to be tightly butted
Mastic or Cement
90°

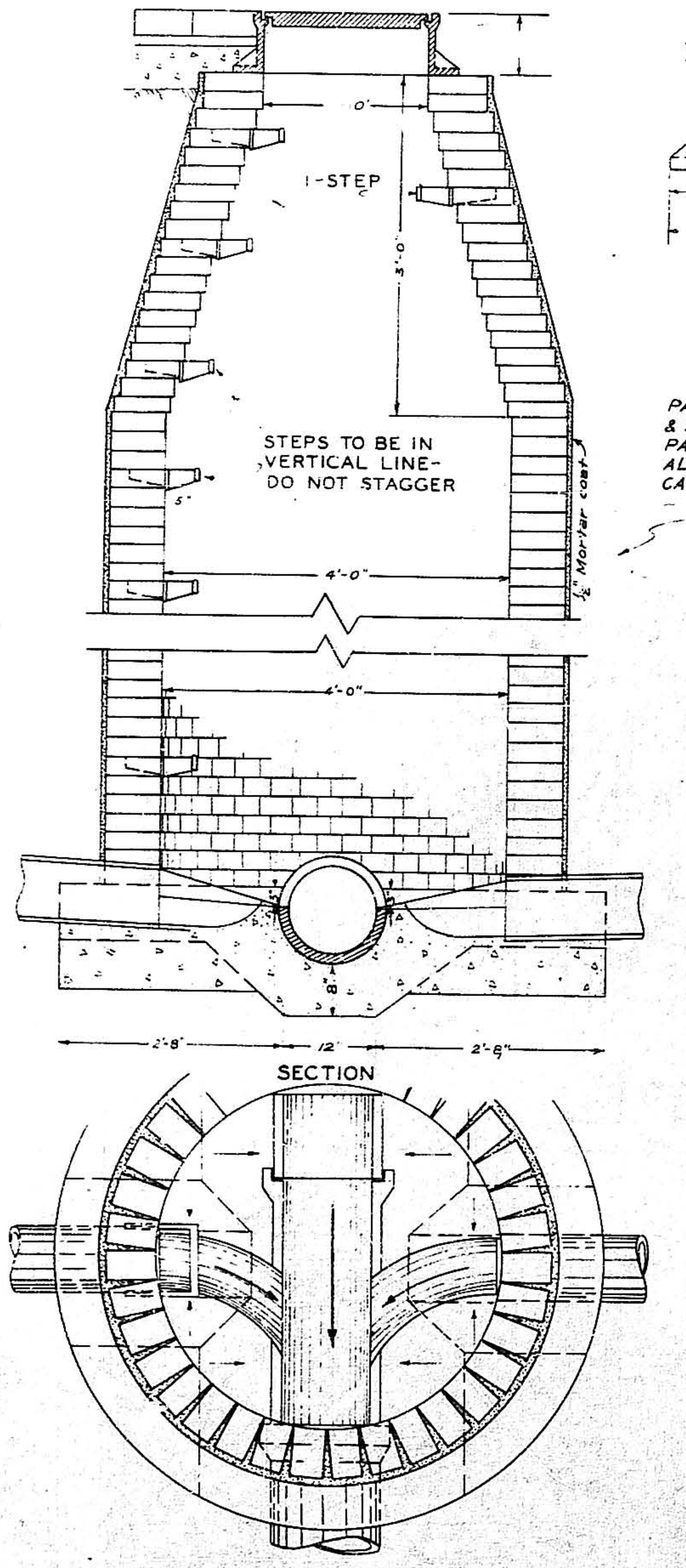
Bottom quadrant of pipe to set in undisturbed earth

Make excavations for bell large enough for bell and hand space for handling

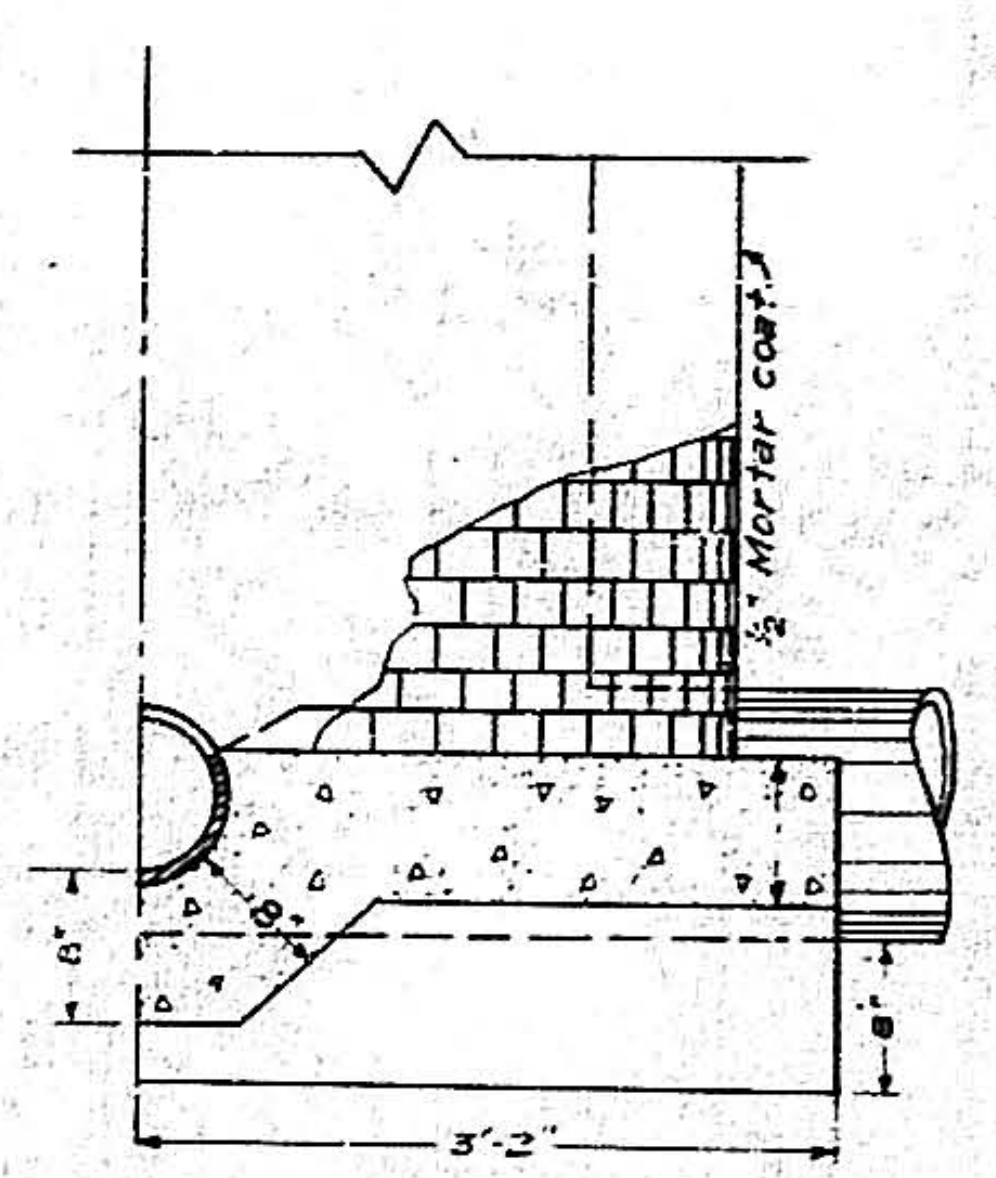
METHOD OF CONSTRUCTION - SEWER LINE


½" Mortar coat
Minimum 5'0" (Use shallow type for less depth)
BREAK OUT TOP HALF OF PIPE AFTER COMPLETING MANHOLE
2'-8"
12"
2'-8"
SECTION
SLOPE

STANDARD THRU MANHOLE

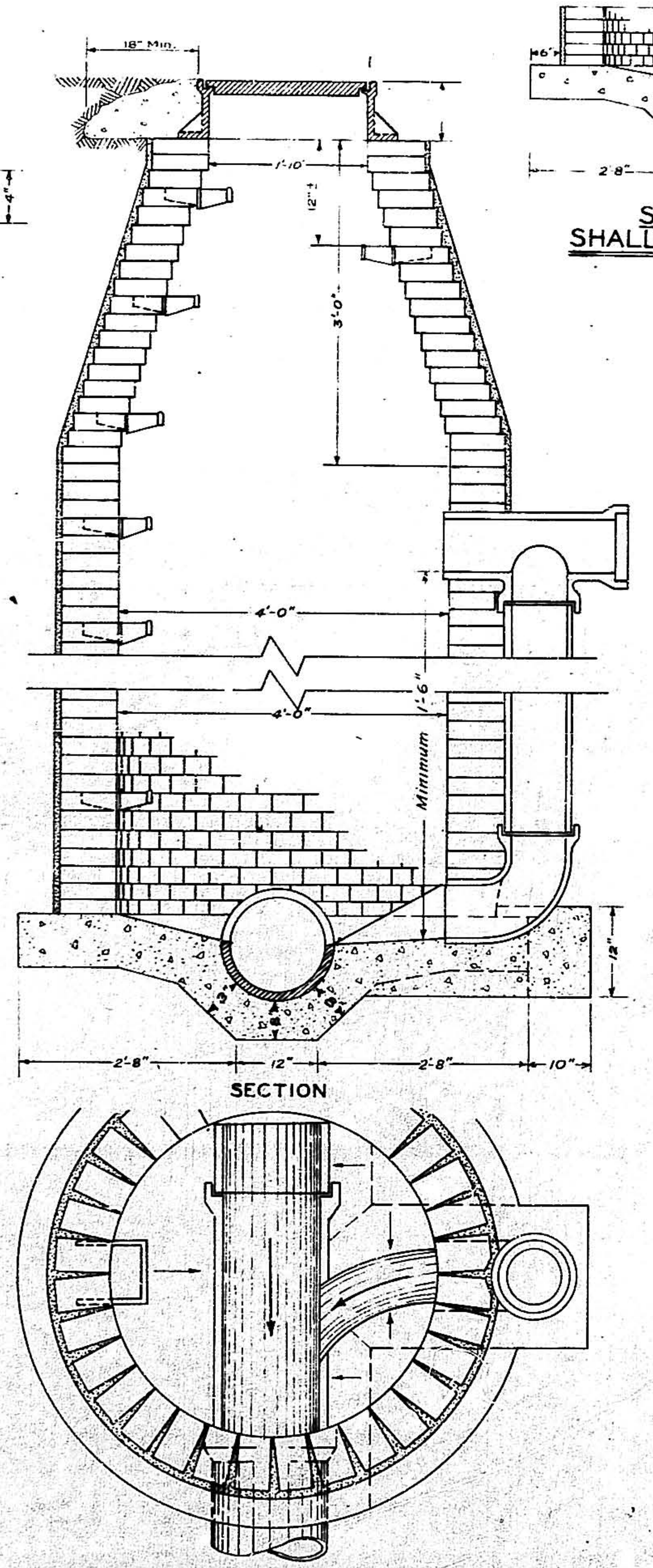

I-STEP
3'-0"
STEPS TO BE IN VERTICAL LINE- DO NOT STAGGER
½" Mortar coat
4'-0"
4'-0"
2'-8"
12"
2'-8"
SECTION

STANDARD JUNCTION MANHOLE


½" Mortar coat
8"
8"
3'-2"

SIDE VIEW OF SECTION

LAY PIPE CONTINUOUSLY THROUGH MANHOLES AND BREAK OUT TOP HALF AFTER COMPLETION OF MANHOLE


18" Min.
12"
3'-0"
4'-0"
4'-0"
Minimum 1'-6"
2'-8"
12"
2'-8"
10"
SECTION

STANDARD DROP MANHOLE

AS CONSTRUCTED

07 035 1261 10

W. F. TURNEY
AND ASSOCIATES
CONSULTING ENGINEERS
SANTA FE, NEW MEXICO

ALBUQUERQUE, NEW MEXICO

STANDARD MANHOLE
DETAILS--BRICK 8"-36"

BY	REVISION	DATE

O.A.E. DESIGNATES OR APPROVED EQUAL

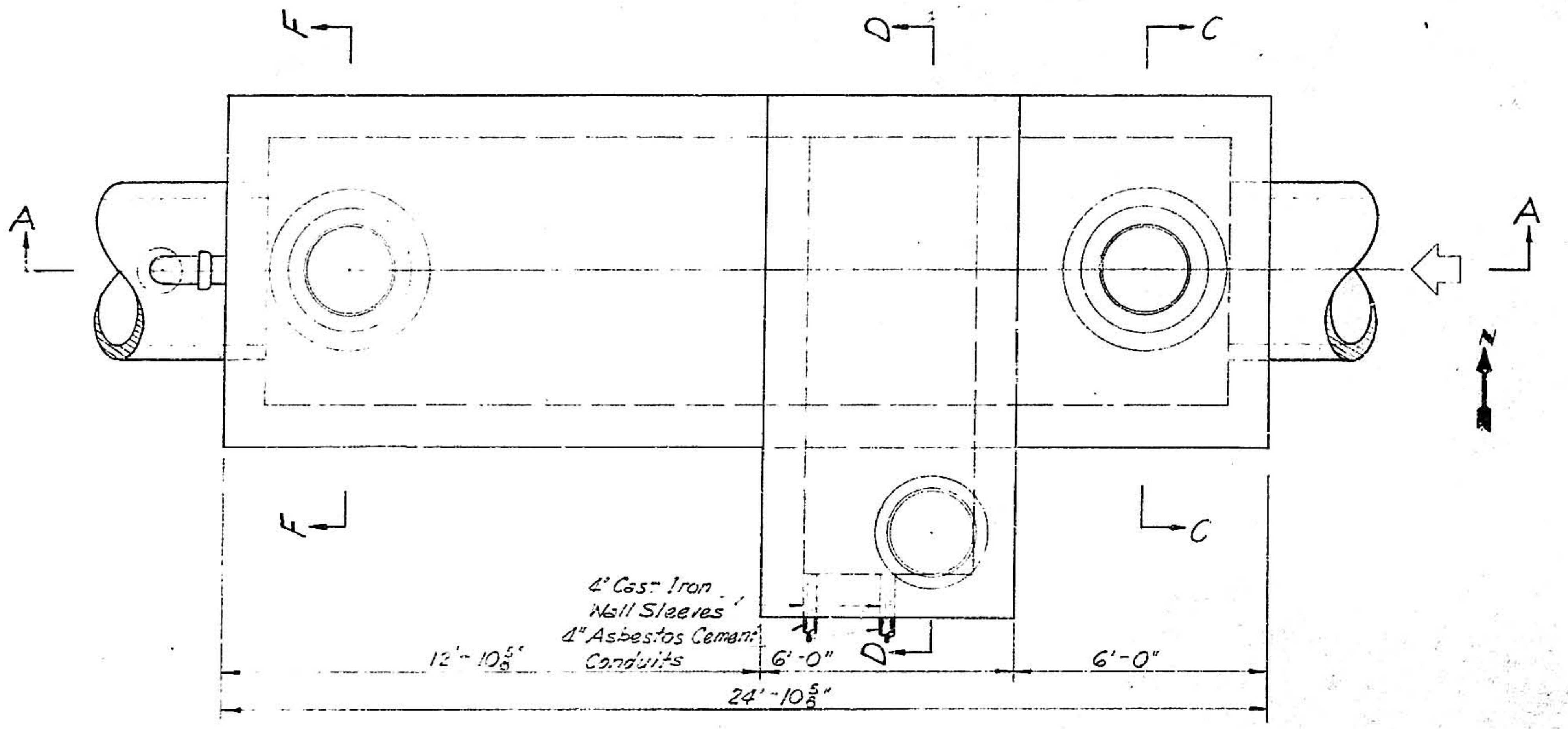
DRAWN:
CHECKED:

PROJECT No. 60-3

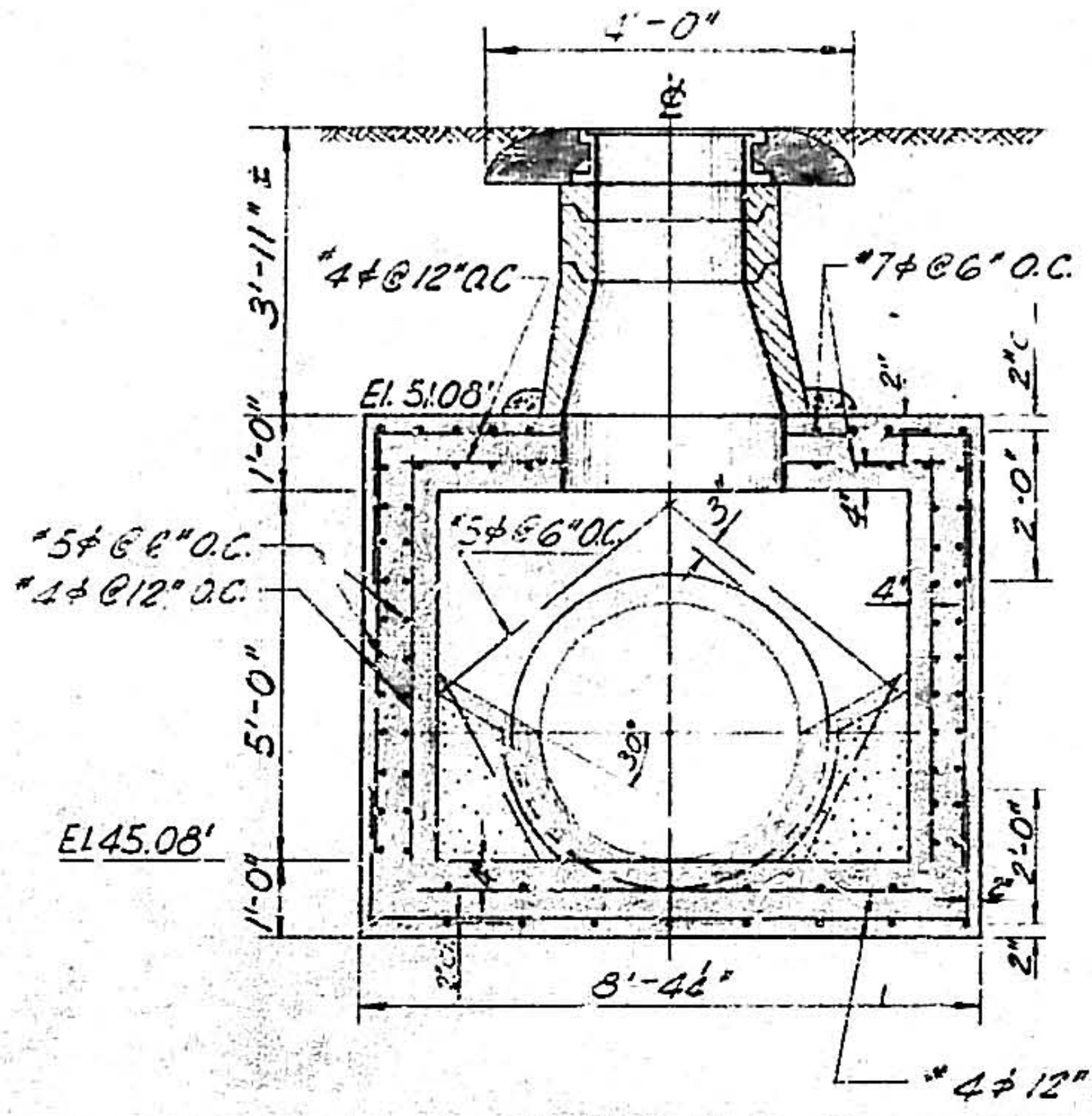
SCALE: 3/4"=1'

DATE: MAR '61

SHEET 12 OF 14

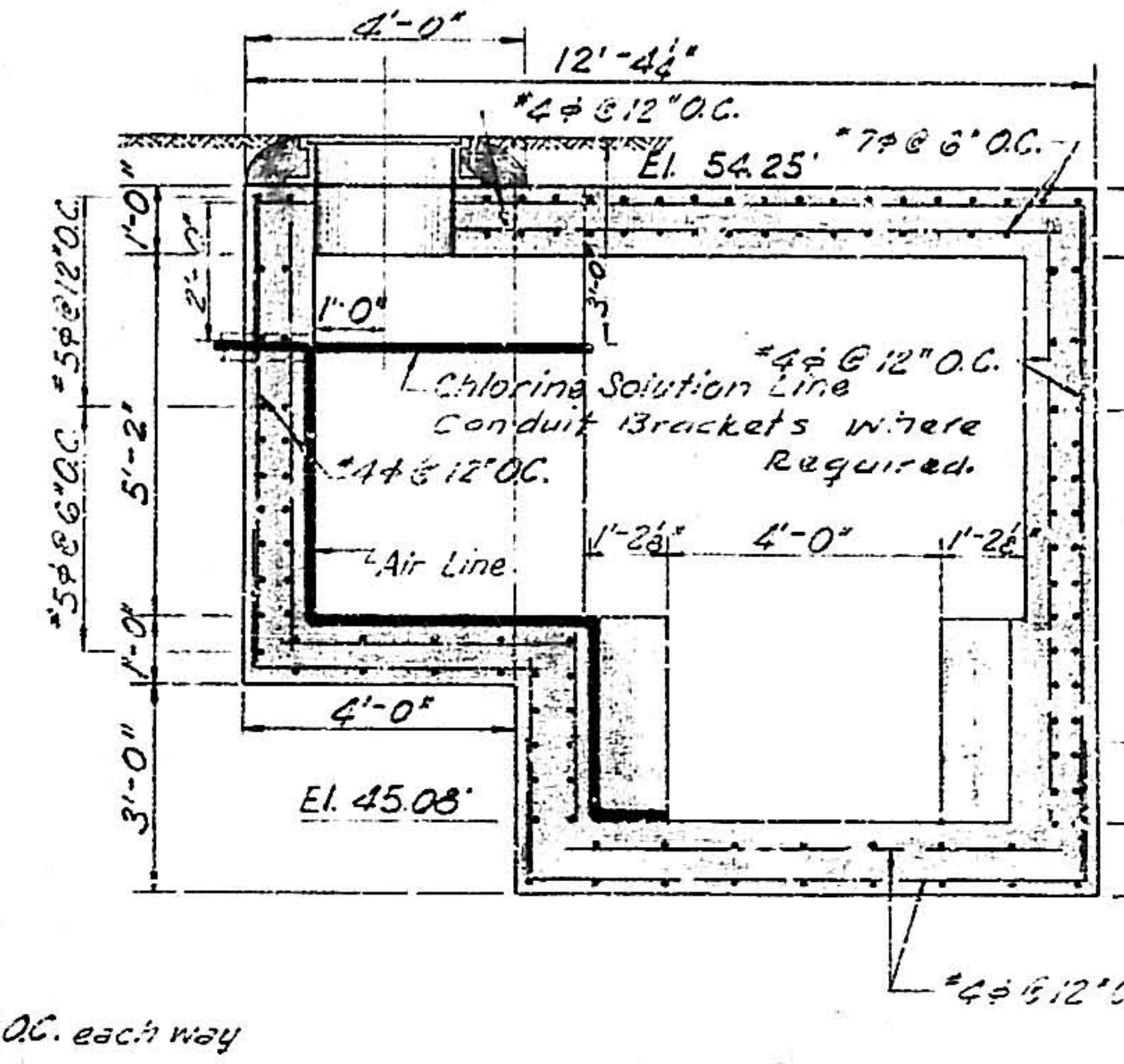

F
D
C
A
A
F
C
4" Cast Iron Wall Sleeves
4" Asbestos Cement Conduits
12'-10 5/8"
6'-0"
6'-0"
24'-10 5/8"

TOP PLAN

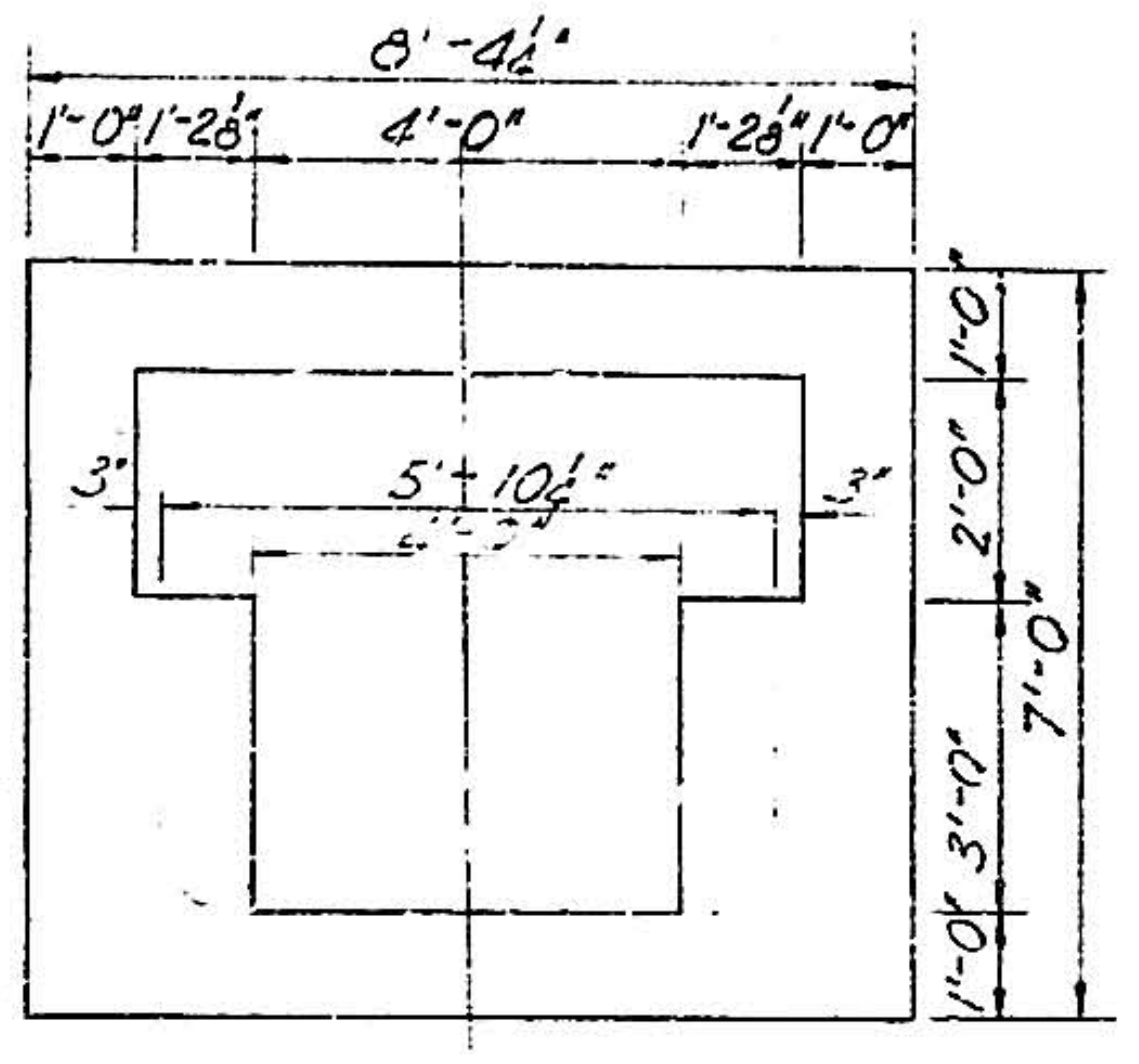

4'-0"
3'-11" ±
#4 ф @ 12" O.C.
#7 ф @ 6" O.C.
El 51.08'
#5 ф @ 6" O.C.
#4 ф @ 12" O.C.
#5 ф @ 6" O.C.
5'-0"
3'-0"
El 45.08'
8'-4 1/4"

#4 ф 12" O.C. each way

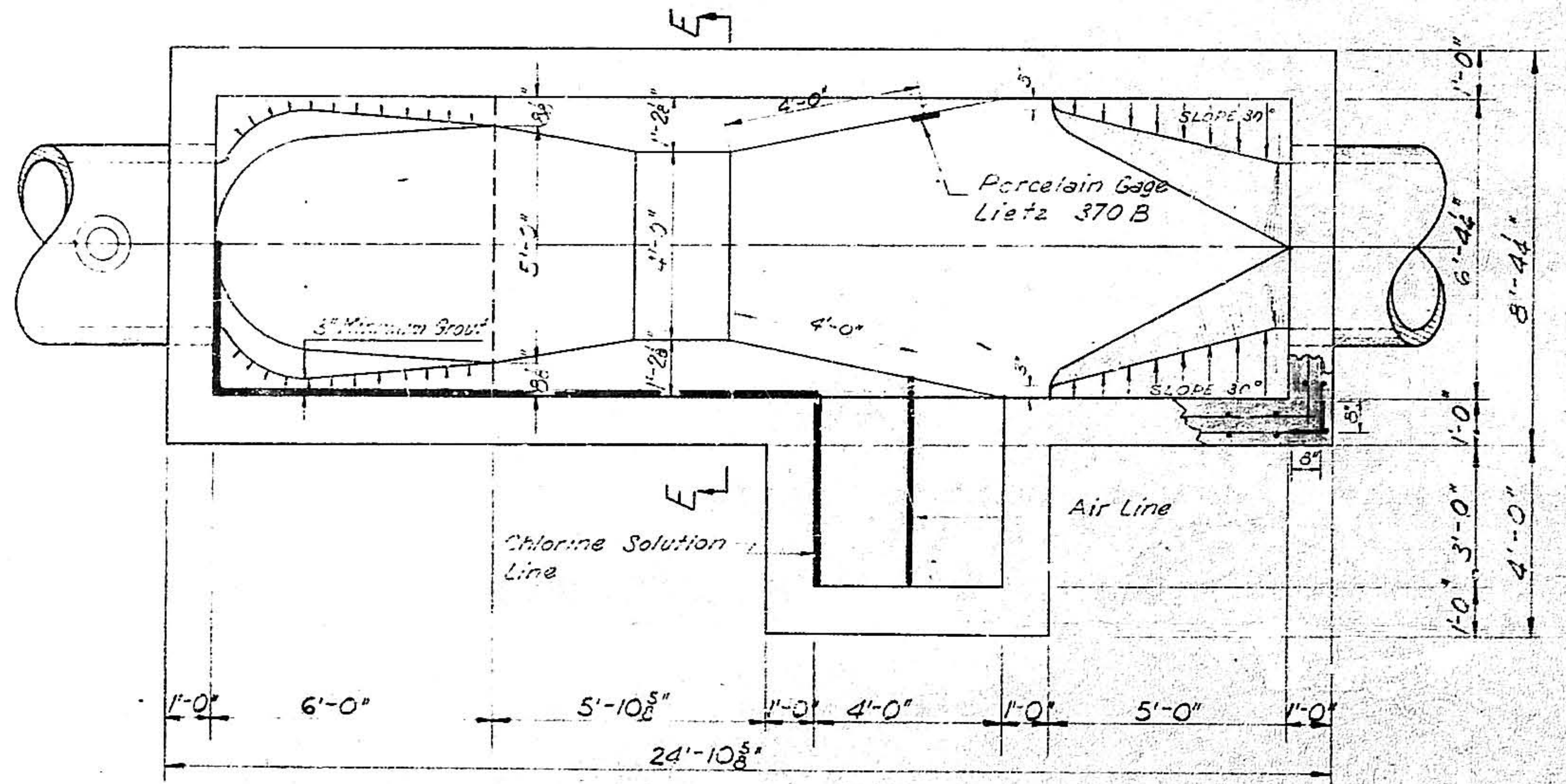
SECTION C-C


4'-0"
12'-4 1/4"
#4 ф @ 12" O.C.
El 54.25'
#7 ф @ 6" O.C.
#4 ф @ 12" O.C.
Chlorine Solution Line
Conduit Brackets where Required.
#4 ф @ 12" O.C.
Air Line
1'-2 1/8"
4'-0"
4'-0"
El 45.08'
#5 ф @ 12" O.C.
#5 ф @ 6" O.C.
5'-2"
8'-2"
#4 ф @ 12" O.C. each way

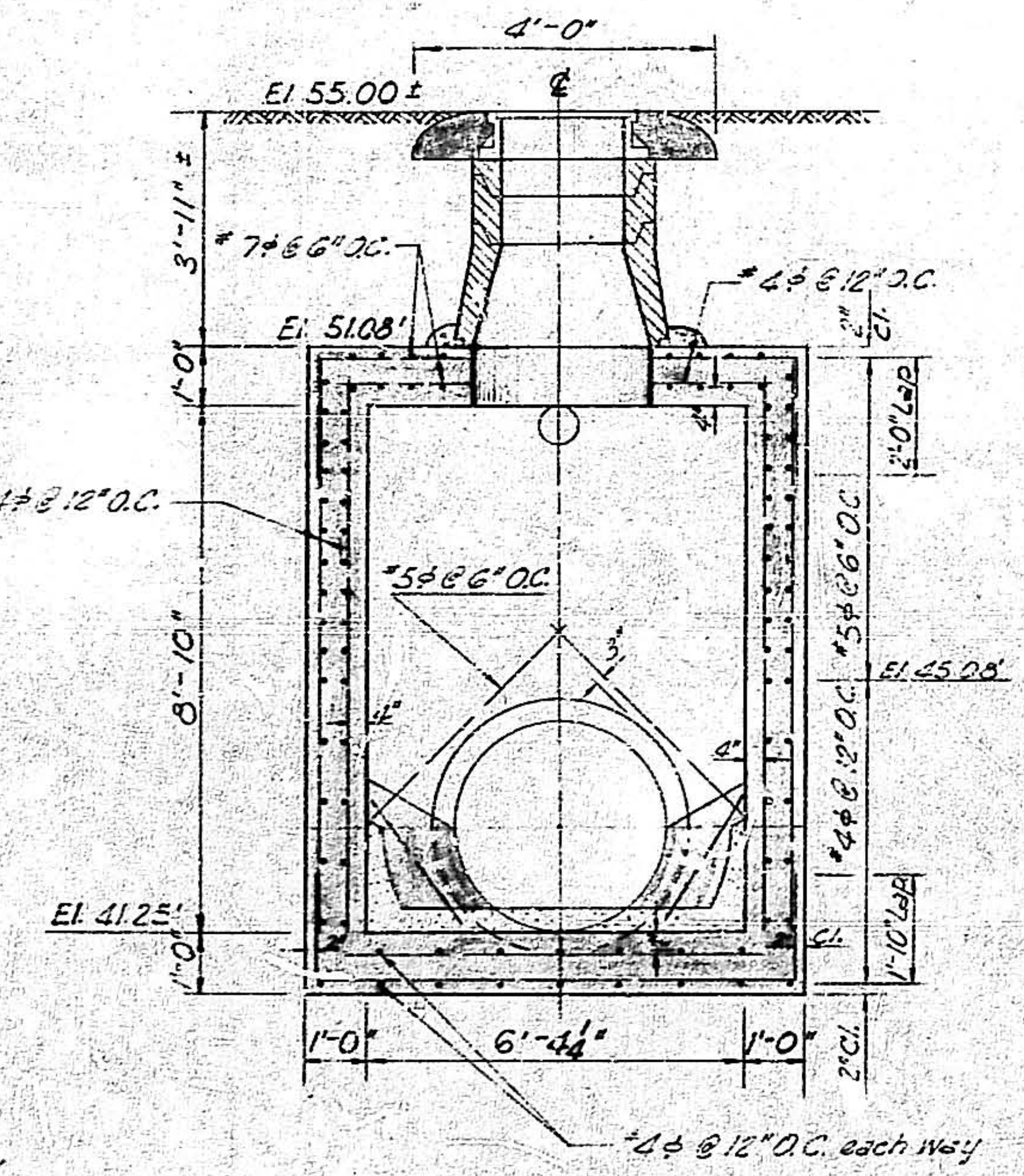
SECTION D-D


8'-4 1/4"
1'-0" 1'-2 1/8"
4'-0"
1'-2 1/8" 1'-0"
5'-10 1/4"
3"
3"
1'-0"
2'-0"
7'-0"
3'-0"

SECTION E-E

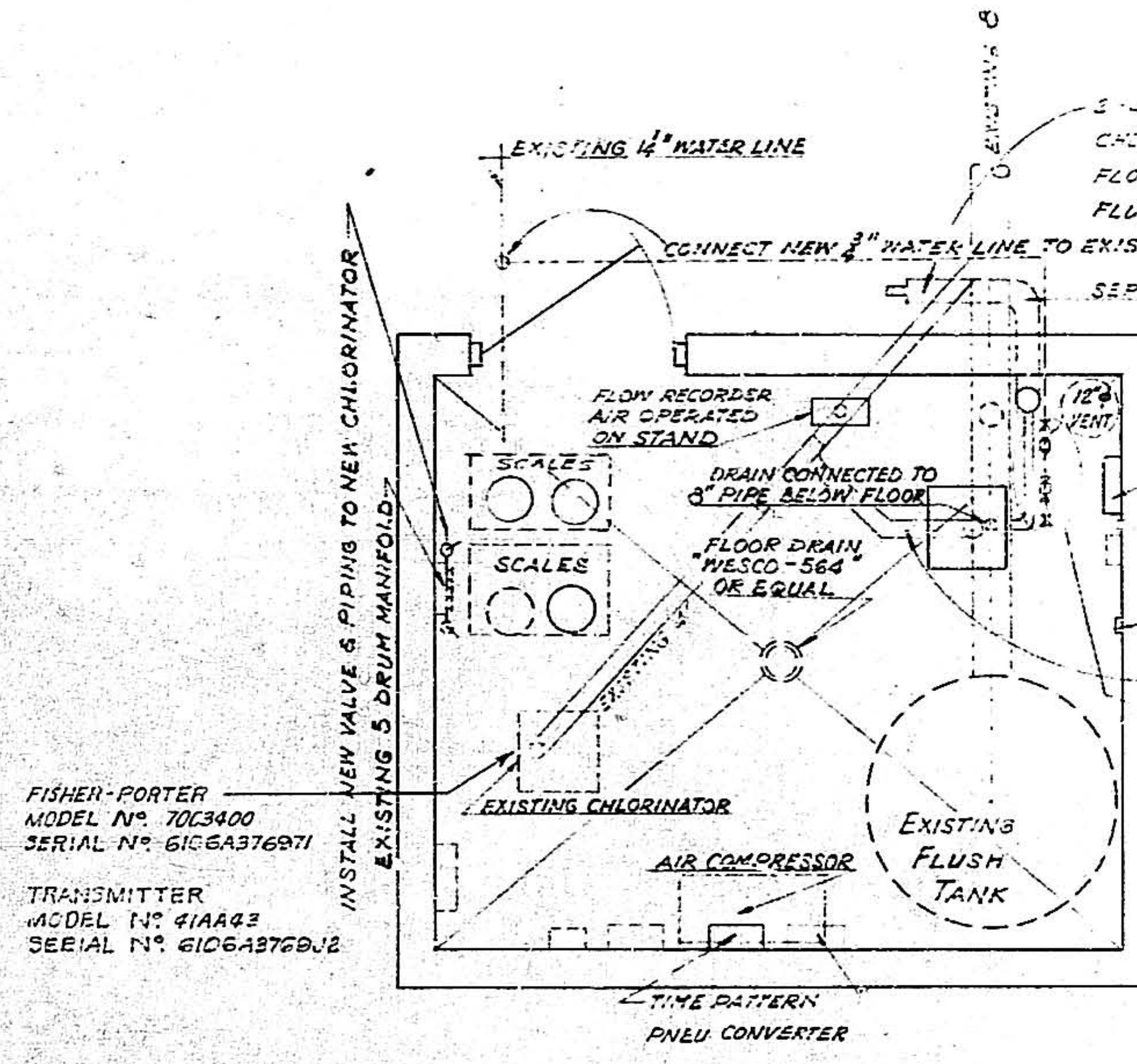

E
Slope 30°
4'-0"
Porcelain Gage Lietz 370 B
5'-2 1/8"
1'-2 1/8"
3" Minimum Grout
4'-0"
Slope 30°
Chlorine Solution Line
Air Line
6'-4 1/4"
8'-4 1/4"
1'-0"
3'-0"
4'-0"
1'-0"
6'-0"
5'-10 5/8"
1'-0"
4'-0"
1'-0"
5'-0"
1'-0"
24'-10 5/8"

FLOOR PLAN-SECTION B-B


4'-0"
El 55.00 ±
3'-11" ±
#7 ф @ 6" O.C.
#4 ф @ 12" O.C.
El 51.08'
#4 ф @ 12" O.C.
#5 ф @ 6" O.C.
#5 ф @ 6" O.C.
El 45.08'
#4 ф @ 12" O.C.
8'-10"
El 41.25'
1'-0"
6'-4 1/4"
1'-0"
2" Cl.

#4 ф @ 12" O.C. each way

SECTION F-F


Existing 1 1/4" Water Line
Existing 8
Connect new 3/4" water line to existing service
Flow Recorder Air Operated on Stand
Scales
Scales
Drain connected to 8" pipe below floor
Floor Drain "Wesco-564" or Equal
Install new valve & piping to new chlorinator
Existing 5 drum manifold
Existing chlorinator
Air Compressor
Existing Flush Tank
Time Pattern Pneu Converter
(12" Vent)

Fisher-Porter
Model No 70C3400
Serial No 6106A376971

Transmitter
Model No 41AA43
Serial No 6106A3769J2

3-4" Asbestos Cement Conduit
Chlorine Solution Line
Flow Meter Air Line to Parshall Flume
Seperate Conduits

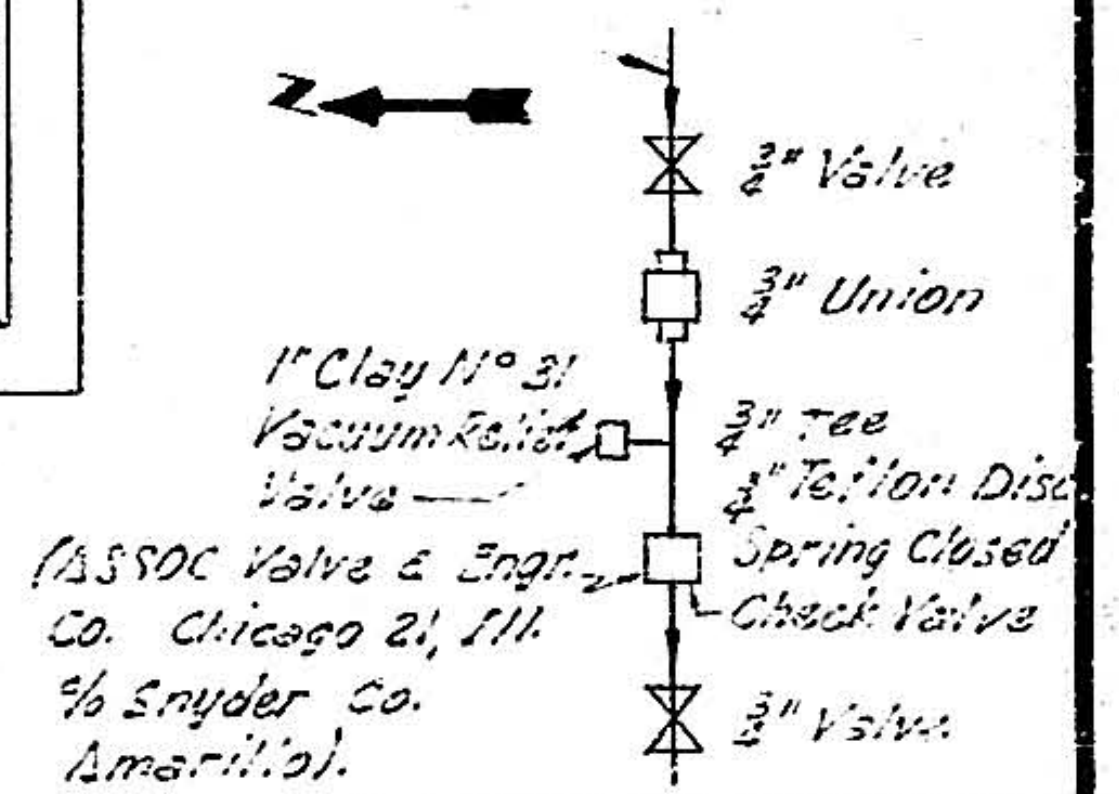
"Electric Heater"
Center 4'-6" above floor
"Electromode" No 6930-4
with thermostat (40° to 90°)
1100 watts, 120 volts, 1ф O.A.E.

Install 1 1/2" pipe sleeve for chlorine vent

Existing 110 volt wall outlet

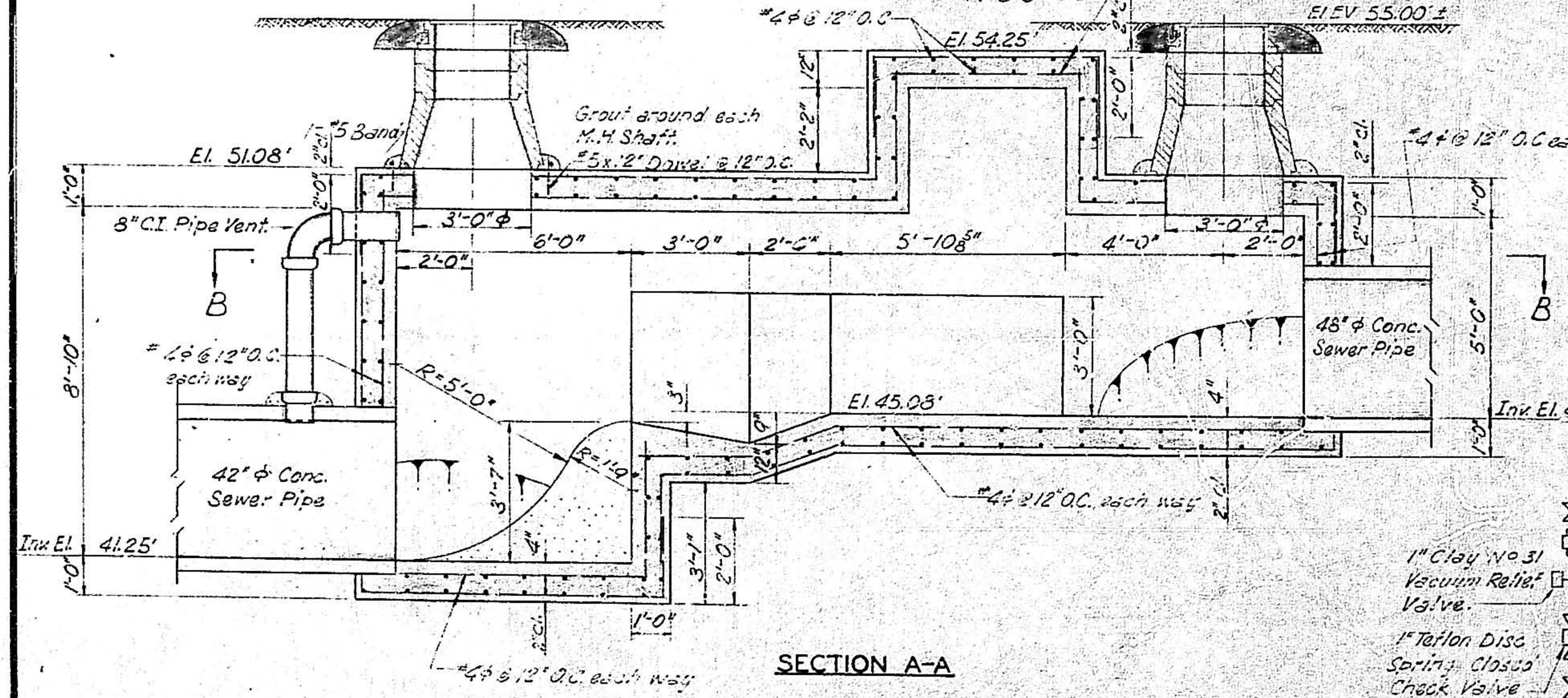
4" waste line w/ "P" trap

CHLORINATOR HOUSE


N
3/4" Valve
3/4" Union
3/4" Tee
3/4" Teflon Disc Spring Closed Check Valve
1" Clay No 31 Vacuum Relief Valve
3/4" Valve

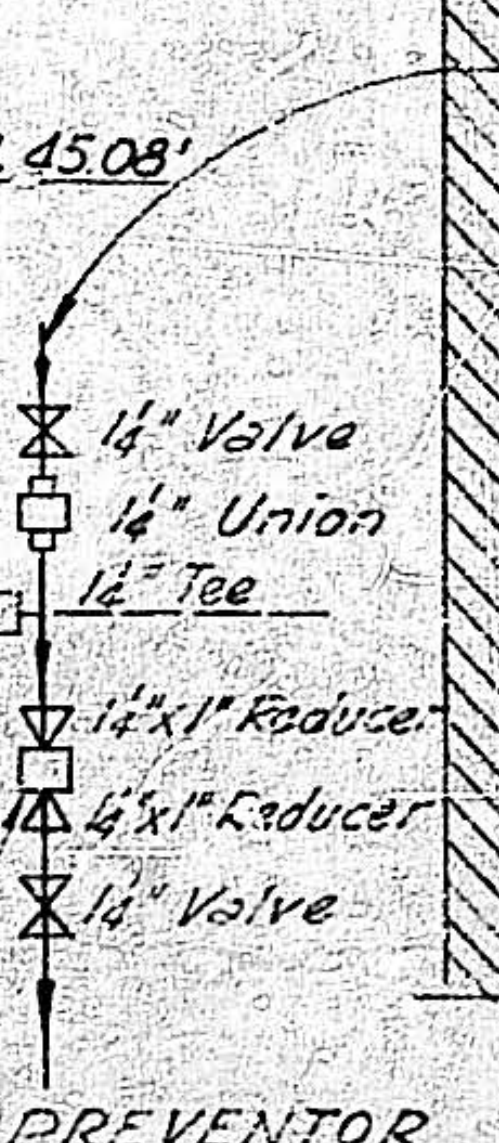
(Assoc Valve & Engr. Co. Chicago 21, Ill. % Snyder Co. Amarillo).

BACKFLOW PREVENTOR


#7 ф @ 6" O.C.
#4 ф @ 12" O.C.
El 54.25'
Elev 55.00' ±
1"-5 Band
Grout around each M.H. Shaft
#5 x 2' Dowel @ 12" O.C.
#4 ф @ 12" O.C. each way
El 51.08'
8" C.I. Pipe Vent
3'-0" ф
3'-0" ф
6'-0"
3'-0"
2'-0"
5'-10 5/8"
4'-0"
2'-0"
B
B
48" ф Conc. Sewer Pipe
#4 ф @ 12" O.C. each way
R=5'-0"
42" ф Conc. Sewer Pipe
El 45.08'
8'-10"
Inv. El. 41.25'
#4 ф @ 12" O.C. each way
#4 ф @ 12" O.C. each way
Inv. El. 45.08'

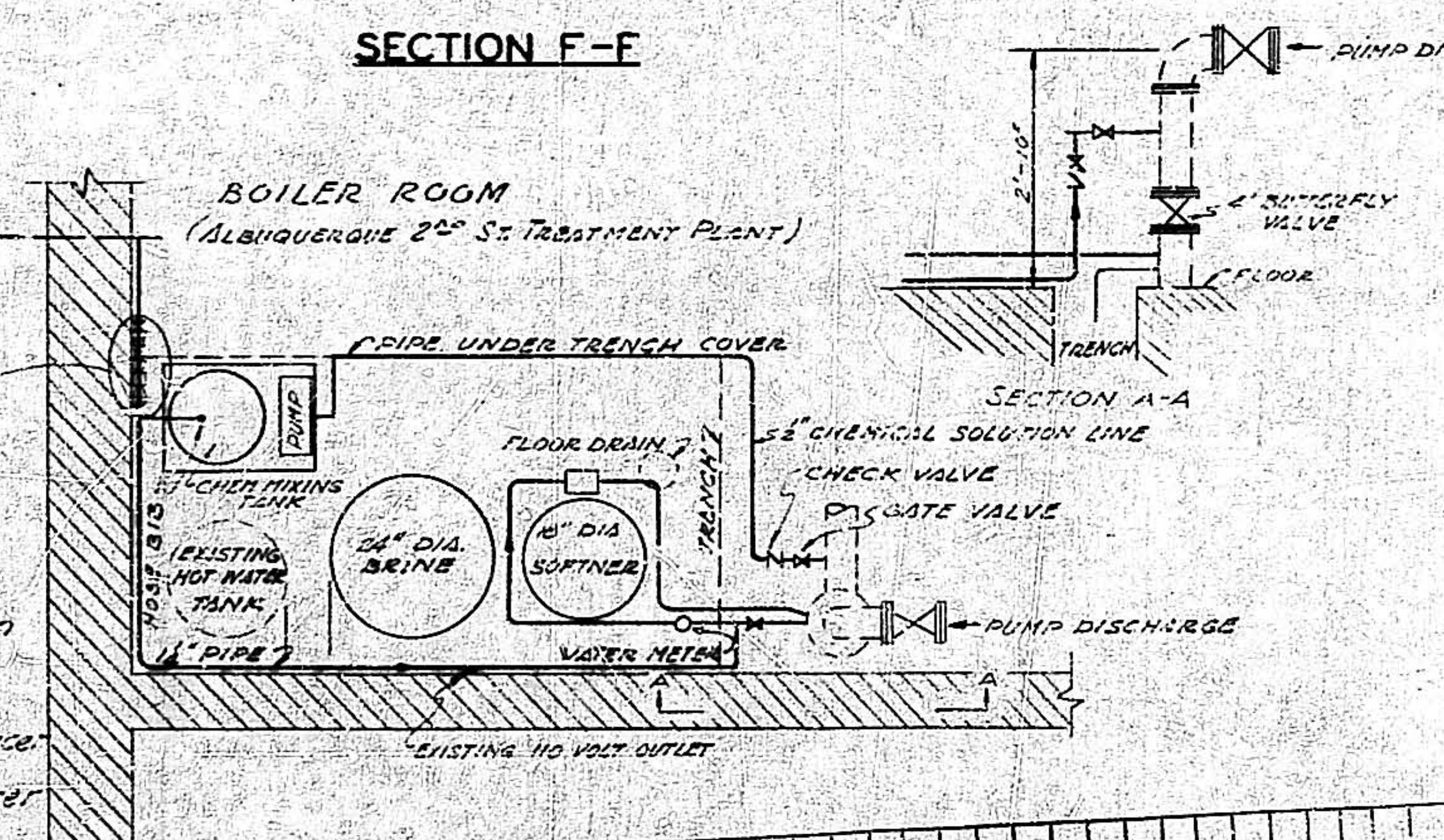
SECTION A-A

PARSHALL FLUME
SCALE 3/8" = 1'


1 1/4" Valve
1 1/4" Union
1 1/4" Tee
1 1/4" x 1" Reducer
1 1/4" x 1" Reducer
1 1/4" Valve

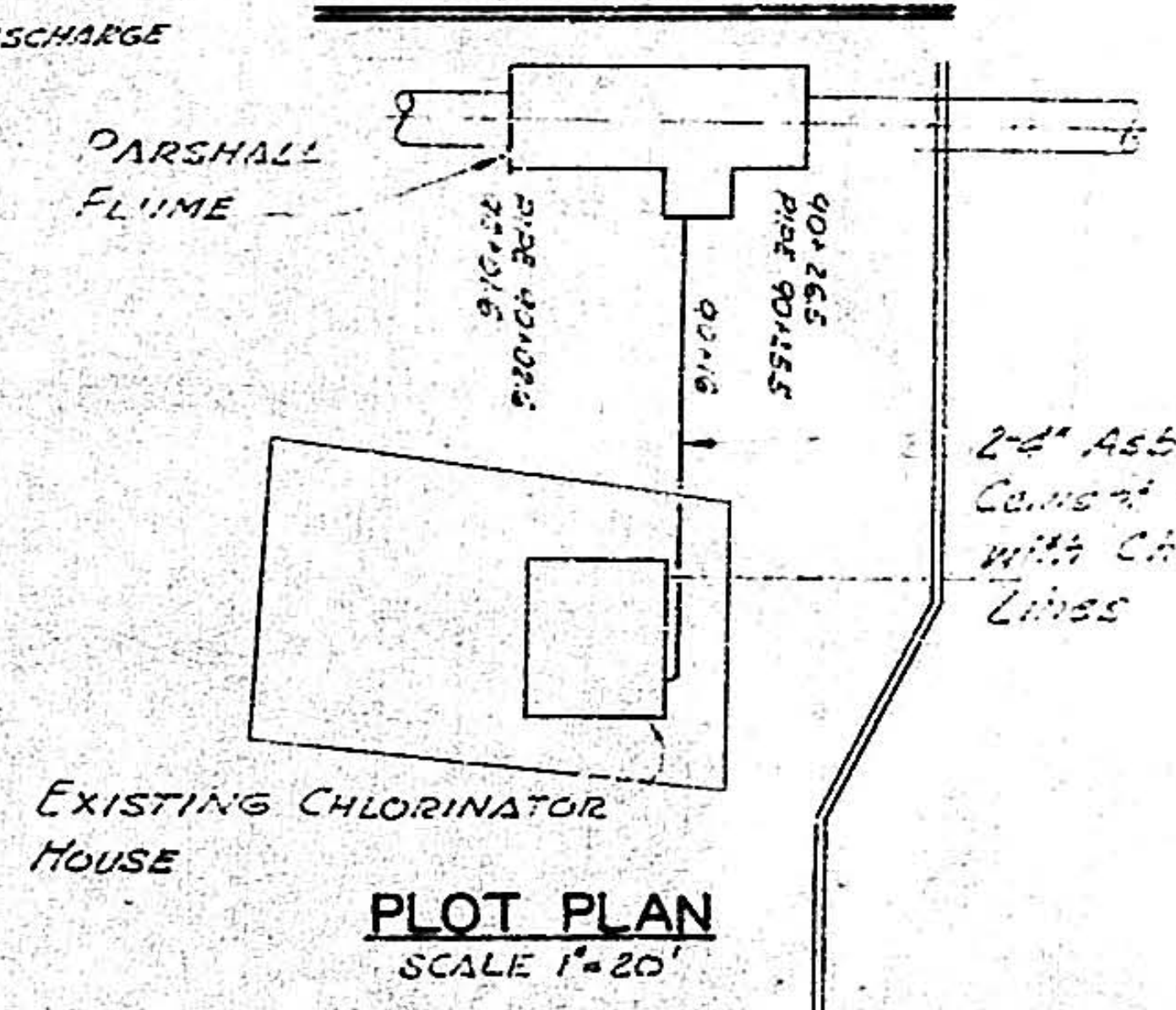
1" Clay No 31 Vacuum Relief Valve
1" Teflon Disc Spring Closed Check Valve

BACKFLOW PREVENTOR


Boiler Room (Albuquerque 2nd St. Treatment Plant)
Pipe under trench cover
Pump
Chem Mixing Tank
Existing Hot Water Tank
24" Dia. Brine
18" Dia Softner
Floor Drain
Trench
1/2" Chemical solution line
Check valve
Gate valve
Pump discharge
Water Meter
1 1/4" Pipe
Hose Bib
Existing 110 volt outlet
A
A
Pump discharge
4" Butterfly Valve
Floor
Trench
2'-10"
Section A-A

WATER SOFTENING SYSTEM
Scale 1/2" = 1'

2ND ST. SEWAGE TREATMENT PLANT


Parshall Flume
N
Existing Chlorinator House

2-4" Asbestos Cement Conduits with Chlorine & Air Lines

PLOT PLAN
SCALE 1" = 20'

07 035 1361 10

AS CONSTRUCTED

W. F. TURNEY
AND ASSOCIATES
CONSULTING ENGINEERS
SANTA FE, NEW MEXICO

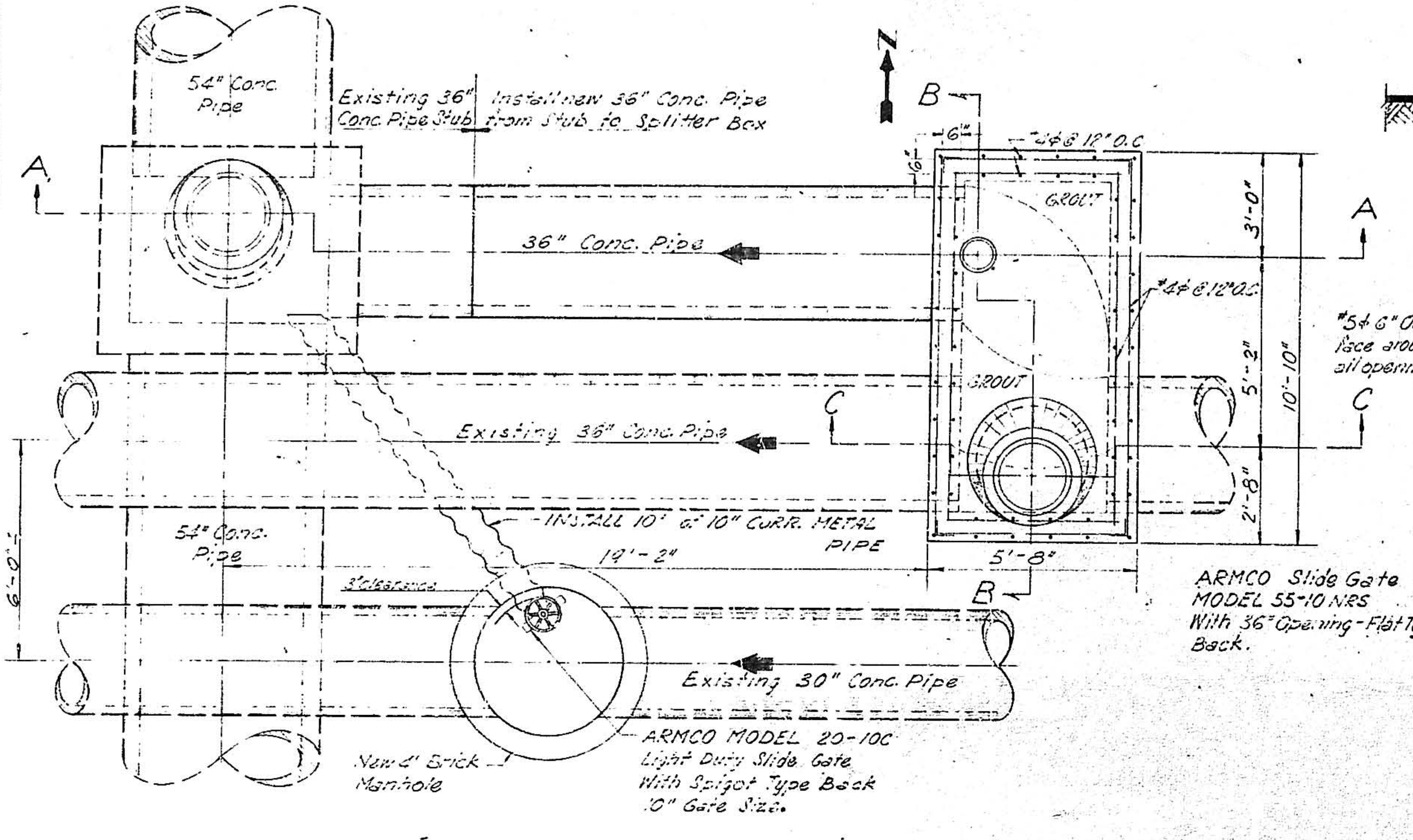
BY	REVISION	DATE

O.A.E. DESIGNATES OR APPROVED EQUAL

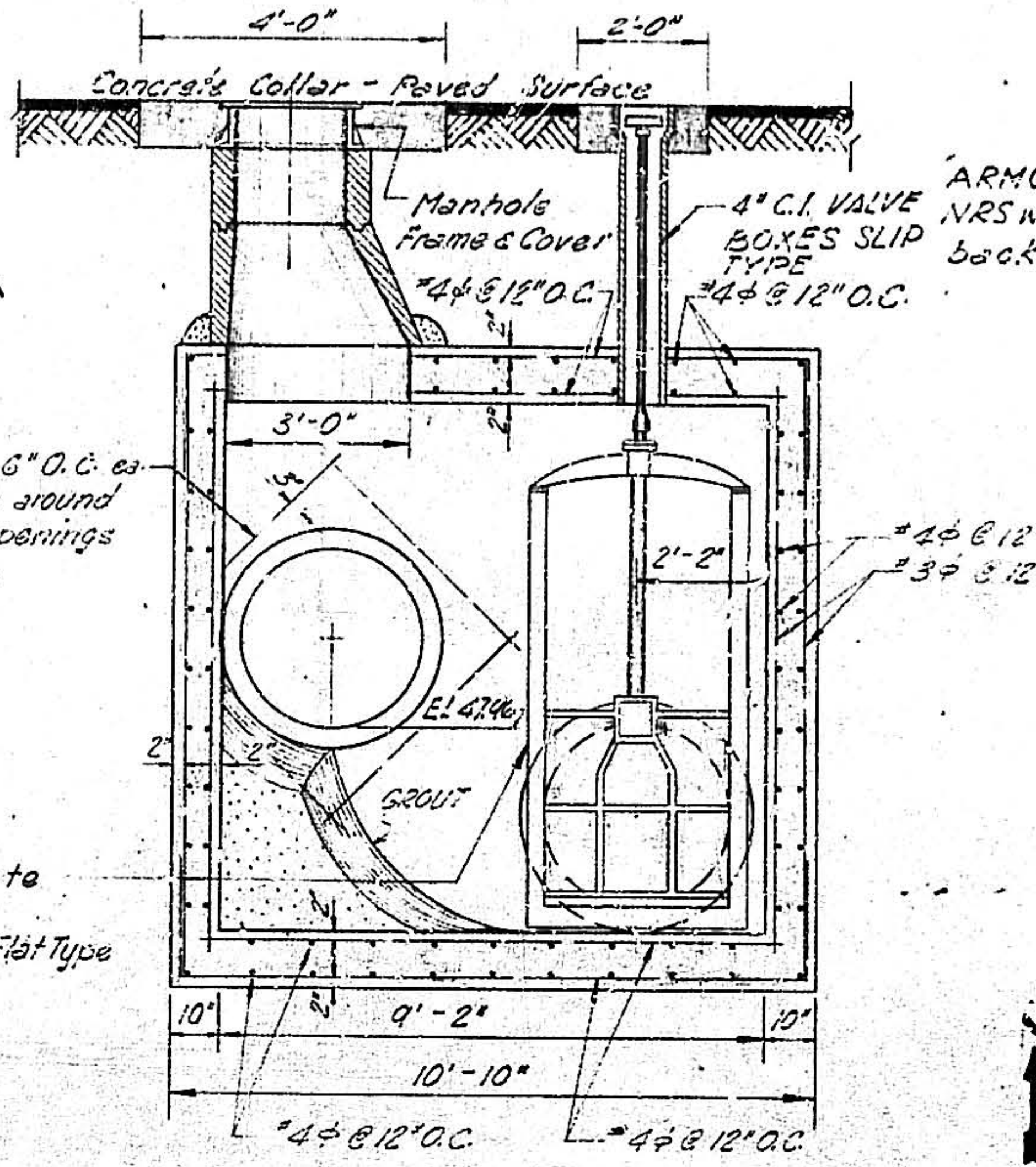
DRAWN: W.A.
CHECKED: L.D.Z.

ALBUQUERQUE NEW MEXICO
NE HEIGHTS INTERCEPTOR SANITARY SEWER
METERING & CHLORINATING DETAILS

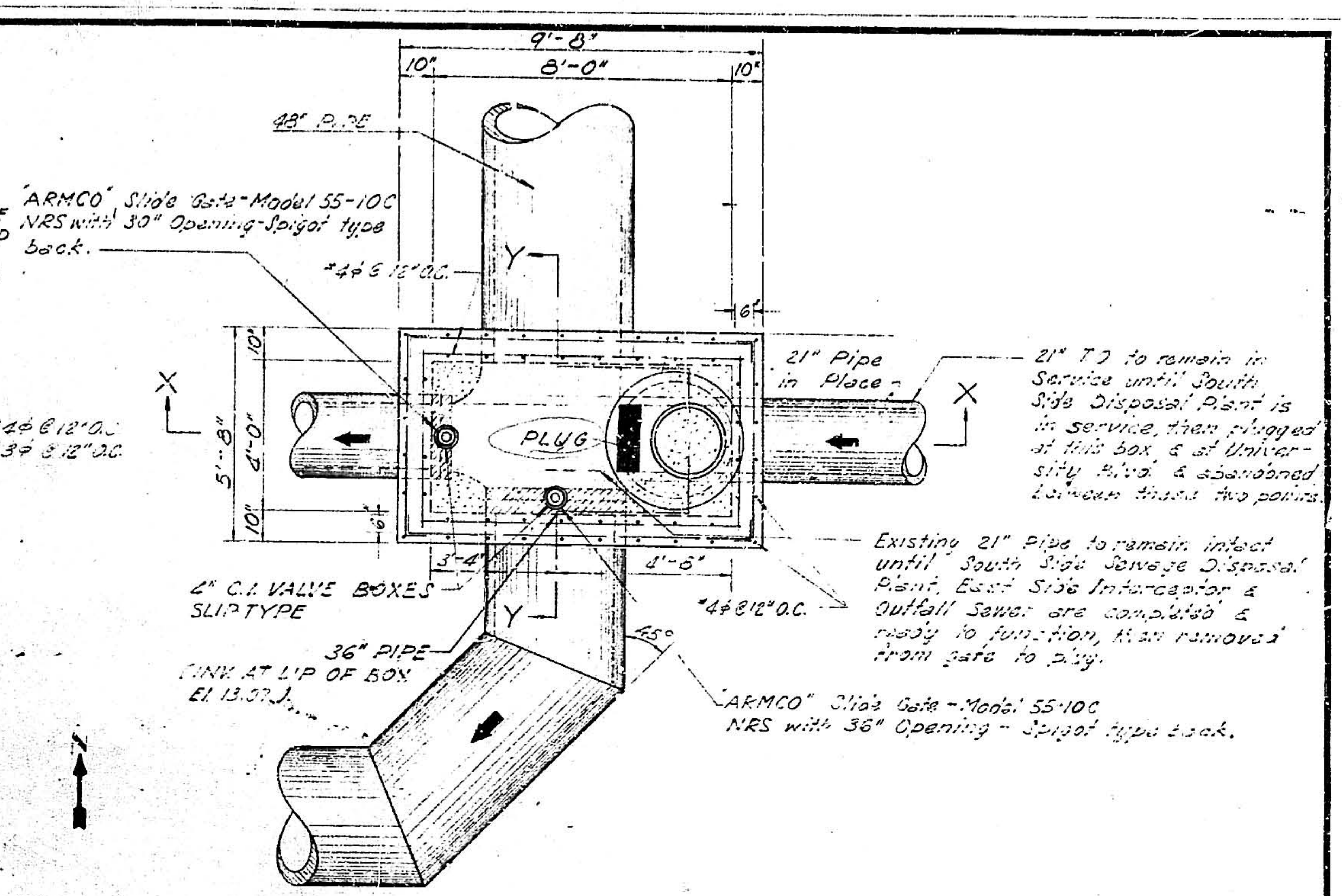
PROJECT No.	SCALE:	DATE:	SHEET
60-3	AS SHOWN	MAR 61	13 OF 14


54" Conc. Pipe
Existing 36" Conc. Pipe Stub
Install new 36" Conc. Pipe from Stub to Splitter Box
A
A
B
B
C
C
N
6"
#4 @ 12" O.C.
GROUT
36" Conc. Pipe
#4 @ 12" O.C.
3'-0"
5'-2"
10'-10"
2'-8"
GROUT
Existing 36" Conc. Pipe
54" Conc. Pipe
INSTALL 10' of 10" CORR. METAL PIPE
19'-2"
5'-8"
6'-0"
3" Clearance
Existing 30" Conc. Pipe
New 4' Brick Manhole
ARMCO MODEL 20-10C Light Duty Slide Gate With Spigot Type Back 10" Gate Size.
ARMCO Slide Gate MODEL 55-10 NRS With 36" Opening - Flat Type Back.

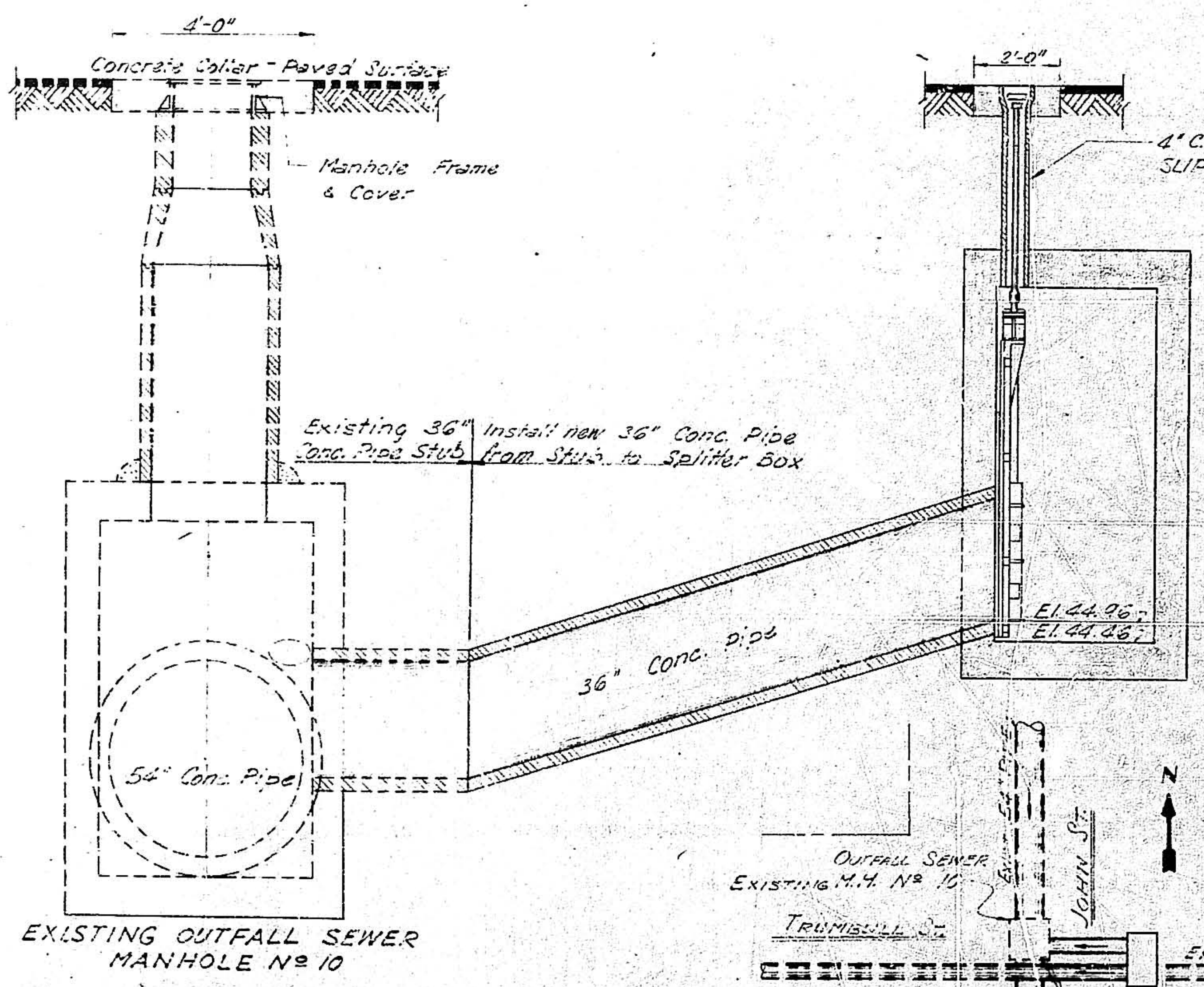
PLAN


4'-0"
2'-0"
Concrete Collar - Paved Surface
Manhole Frame & Cover
4" C.I. VALVE BOXES SLIP TYPE
#4 @ 12" O.C.
#4 @ 12" O.C.
#5 @ 6" O.C. ea. face around all openings
3'-0"
2'-2"
#4 @ 12" O.C.
#3 @ 12" O.C.
El 47.46
GROUT
10"
9'-2"
10"
10'-10"
#4 @ 12" O.C.
#4 @ 12" O.C.

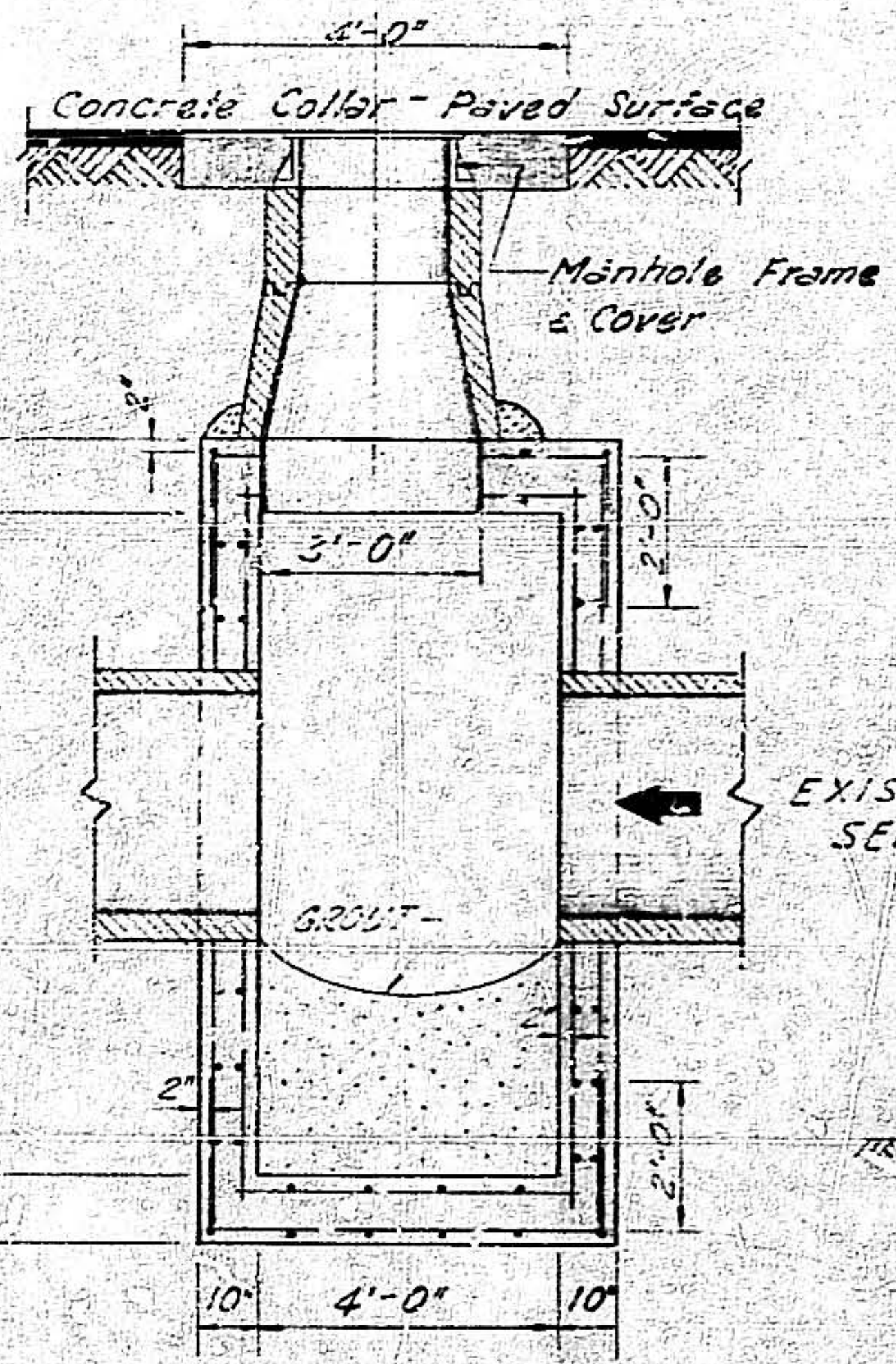
SECTION B-B
Applies to M.H. No 6 Sht. No 5


9'-8"
10"
8'-0"
10"
48" PIPE
"ARMCO" Slide Gate - Model 55-10C NRS with 30" Opening - Spigot type back.
#4 @ 12" O.C.
Y
X
X
5'-8"
4'-0"
PLUG
21" Pipe in Place
21" T.D. to remain in Service until South Side Disposal Plant is in service, then plugged at this box & at University Blvd. & abandoned between these two points.
Existing 21" Pipe to remain intact until South Side Sewage Disposal Plant, East Side Interceptor & Outfall Sewer are completed & ready to function, then removed from gate to plug.
2" C.I. VALVE BOXES SLIP TYPE
3'-4"
4'-6"
#4 @ 12" O.C.
Y
36" PIPE
INV. AT LIP OF BOX El. 13.07
45°
"ARMCO" Slide Gate - Model 55-10C NRS with 36" Opening - Spigot type back.

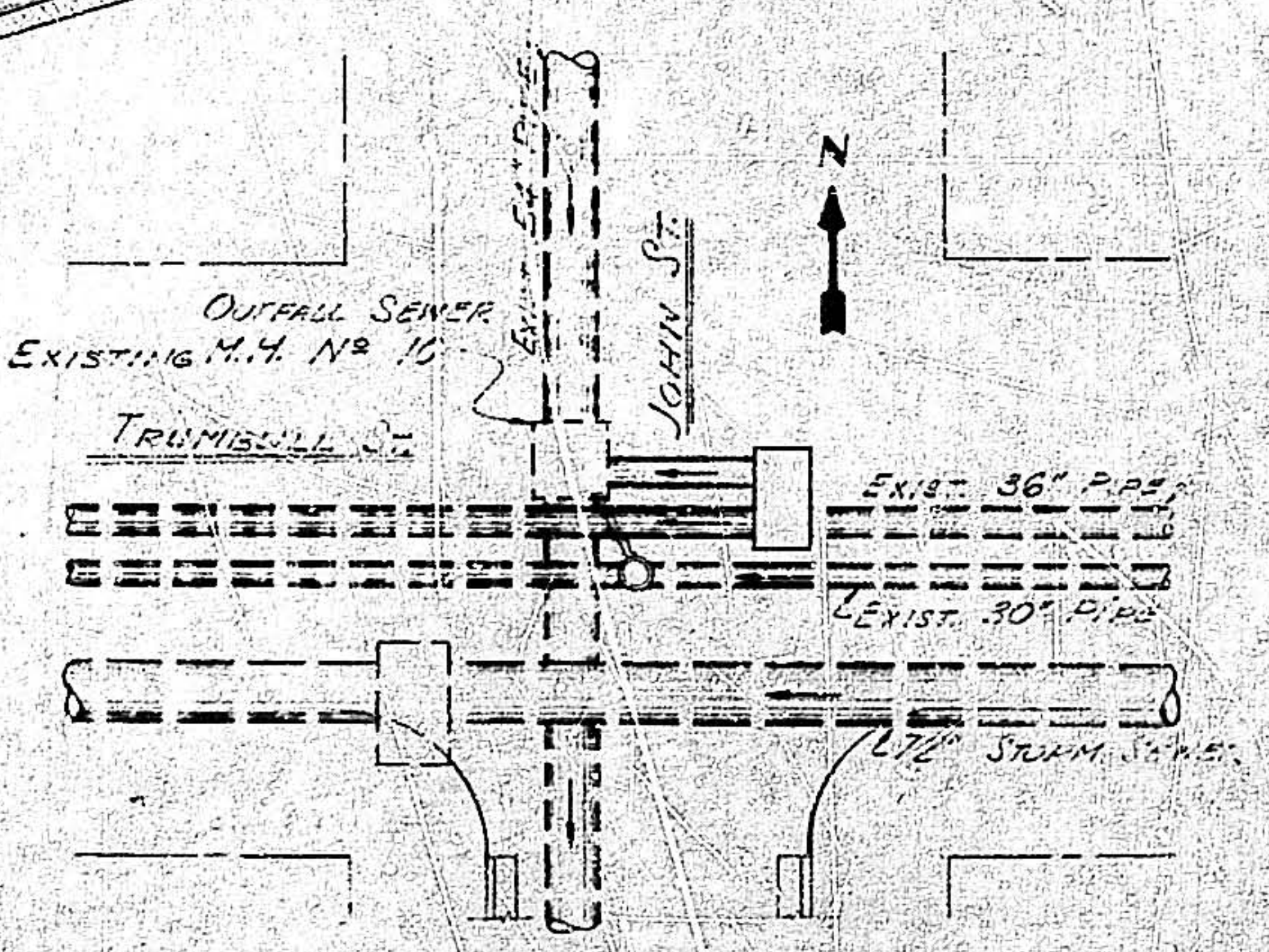
PLAN


4'-0"
Concrete Collar - Paved Surface
Manhole Frame & Cover
2'-0"
4" C.I. VALVE BOX SLIP TYPE
Existing 36" Conc. Pipe Stub
Install new 36" Conc. Pipe from Stub to Splitter Box
36" Conc. Pipe
El 44.96
El 44.46
54" Conc. Pipe
EXISTING OUTFALL SEWER MANHOLE No 10

SECTION A-A

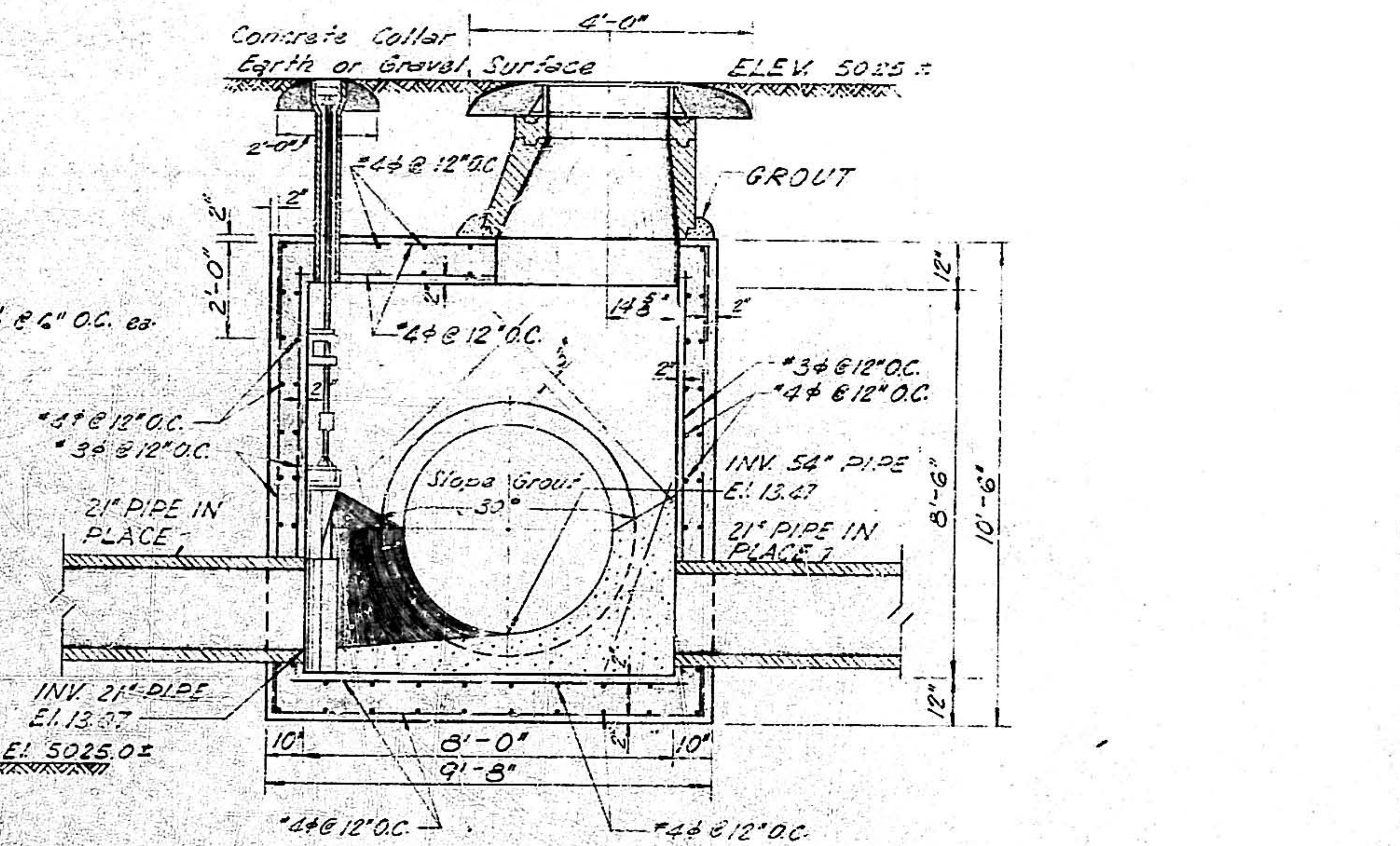

4'-0"
Concrete Collar - Paved Surface
Manhole Frame & Cover
12"
3'-0"
2'-0"
9'-0"
EXISTING 36" SEWER
GROUT
2"
2'-0"
12"
10"
4'-0"
10"

SECTON C-C

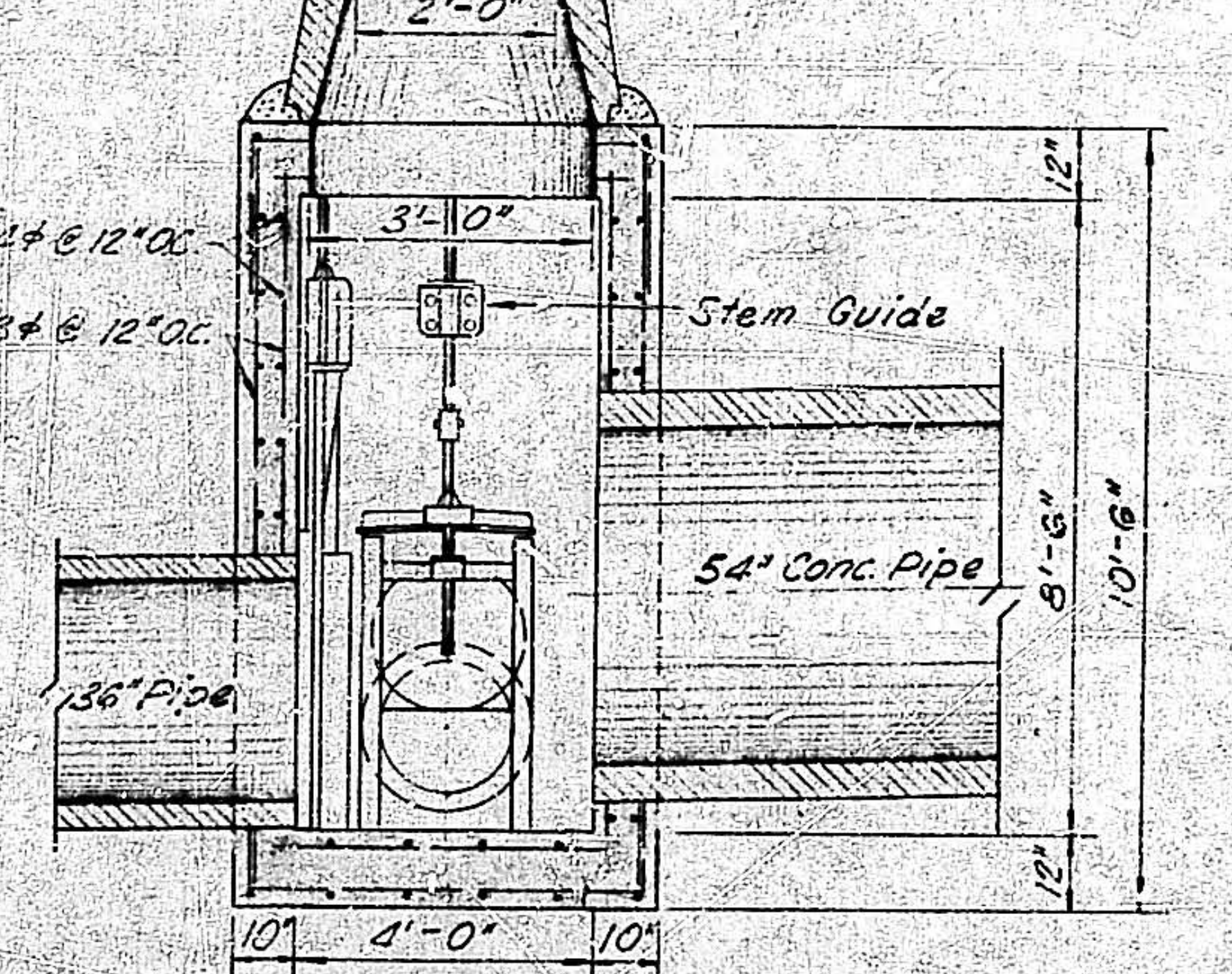

N
OUTFALL SEWER
EXISTING M.H. No 10
JOHN ST.
TRUMBULL ST.
Exist. 36" Pipe
Exist. 30" Pipe
Storm Sewer

PLOT PLAN
SCALE 1" = 20'

SPECIAL STRUCTURE AT JOHN & TRUMBULL
SCALE 3/8" = 1'


Concrete Collar
Earth or Gravel Surface
4'-0"
ELEV. 5025 ±
2'-0"
#4 @ 12" O.C.
GROUT
#5 @ 6" O.C. ea.
2'-0"
#4 @ 12" O.C.
14"
12"
#3 @ 12" O.C.
#4 @ 12" O.C.
#4 @ 12" O.C.
#3 @ 12" O.C.
Slope Grout 30°
INV. 54" PIPE El 13.47
21" PIPE IN PLACE
21" PIPE IN PLACE
8'-6"
10'-6"
INV. 21" PIPE El 13.07
12"
10"
8'-0"
10"
9'-8"
#4 @ 12" O.C.
#4 @ 12" O.C.

SECTION X-X


4'-0"
Concrete Collar
Earth or Gravel Surface
GROUND El 5026.0 ±
2'-0"
3'-0"
12"
#4 @ 12" O.C.
#3 @ 12" O.C.
Stem Guide
54" Conc. Pipe
36" Pipe
8'-6"
10'-6"
12"
10"
4'-0"
10"

SECTION Y-Y

MANHOLE No 6 STA. 23+60
SCALE 3/8" = 1'

NOTE:

1. Paint inside Surfaces of all Manholes & Shafts with three coats of "Inertol" Standard Black.
2. Access & Cleanout Manhole Shafts shall be equivalent in Strength to 4000 # P.S.I. Reinforced Concrete Pipe.
3. For Manhole ladder installation, see ladder detail on Sheet No 11 STANDARD MANHOLE DETAILS.

07 035 1461 10

AS CONSTRUCTED

W. F. TURNEY
AND ASSOCIATES
CONSULTING ENGINEERS
SANTA FE, NEW MEXICO

ALBUQUERQUE, NEW MEXICO

SPECIAL STRUCTURES

BY	REVISION	DATE

O.A.E. DESIGNATES OR APPROVED EQUAL

DRAWN	CHECKED	PROJECT No.	SCALE:	DATE:	SHEET
		60-3	3/8" = 1'	MAR 61	14 OF 14